Service Manual

ViewSonic VP191b/s

Model No. VLCDS25973-2W/3W

19” Color TFT LCD Display

(VP191b/s_SM_678 Rev. 1c Oct. 2004)

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Revision History

Revision	SM Editing Date	Documents Number		Description of Changes	Editor
		DCN Number	ECR Number		
1a	06/28/03	3379		Initial Release	F. Fellen
1b	04/23/04	4290	4226	Cost Down Chassis change	A. Lu
1c	10/18/04	4775	4801	Change Panel From FJ FLC48SXC8V-11A SXGA 25ms To FJ FLC48SXC8V-11AA 16ms	A. Lu

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1. Precautions and Safety Notices

1. Appropriate Operation

(1) Turn off the product before cleaning.
(2) Use only a dry soft cloth when cleaning the LCD panel surface.
(3) Use a soft cloth soaked with mild detergent to clean the display housing.
(4) Use only high quality and safety approved AC power cord.
(5) Disconnect the power plug from AC outlet if the product is not used for a long period of time.
(6) If smoke, abnormal noise, or strange odor is present, immediately switch the LCD display off.
(7) Do not touch the LCD panel surface with sharp or hard objects.
(8) Do not place heavy objects on the LCD display, video cable, or power cord.
(9) Do not use abrasive cleaners, waxes or solvents for your cleaning.
(10) Do not operate the product under the following conditions:
- Extremely hot, cold or humid environment.
- Areas susceptible to excessive dust and dirt.
- Near any appliance generating a strong magnetic field.
- Place in direct sunlight.

2. Caution

No modification of any circuit should be attempted. Service work should only be performed after you are thoroughly familiar with all of the following safety checks and servicing guidelines.

3. Safety Check

Care should be taken while servicing this LCD display. Because of the high voltage used in the inverter circuit, the voltage is exposed in such areas as the associated transformer circuits.

4. LCD Module Handling Precautions

4.1 Handling Precautions

(1) Since front polarizer is easily damaged, pay attention not to scratch it.
(2) Be sure to turn off power supply when inserting or disconnecting from input connector.
(3) Wipe off water drop immediately. Long contact with water may cause discoloration or spots.
(4) When the panel surface is soiled, wipe it with absorbent cotton or other soft cloth.
(5) Since the panel is made of glass, it may break or crack if dropped or bumped on hard surface.
(6) Since CMOS LSI is used in this module, take care of static electricity and insure human earth when handling.
(7) Do not open nor modify the Module Assembly.
(8) Do not press the reflector sheet at the back of the module to any directions.
(9) In case if a Module has to be put back into the packing container slot after once it was taken out from the container, do not press the center of the CCFL Reflector edge. Instead, press at the far ends of the CFL Reflector edge softly. Otherwise the TFT Module may be damaged.
(10) At the insertion or removal of the Signal Interface Connector, be sure not to rotate nor tilt the Interface Connector of the TFT Module.

(11) After installation of the TFT Module into an enclosure (LCD monitor housing, for example), do not twist nor bend the TFT Module even momentary. At designing the enclosure, it should be taken into consideration that no bending/twisting forces are applied to the TFT Module from outside. Otherwise the TFT Module may be damaged.

(12) Cold cathode fluorescent lamp in LCD contains a small amount of mercury. Please follow local ordinances or regulations for disposal.

(13) Small amount of materials having no flammability grade is used in the LCD module. The LCD module should be supplied by power complied with requirements of Limited Power Source (IEC60950 or UL1950), or be applied exemption.

(14) The LCD module is designed so that the CFL in it is supplied by Limited Current Circuit (IEC60950 or UL1950). Do not connect the CFL in Hazardous Voltage Circuit.

2. Specification

2-1 GENERAL SPECIFICATION

Test Resolution & Frequency	1280x1024 @ 60Hz
Test Image Size	Full Size
Contrast and Brightness Controls	Factory Default: Contrast = 50%, Brightness = 100%

2-2 VIDEO INTERFACE

Input Connector 1 (Analog 1)	DB-15 (Analog), refer the appendix A
Input Connector 2 (Analog 2)	DB-15 (Analog), refer the appendix A
Input Connector 3 (Digital)	DVI-D (Digital), refer the appendix B
Default Input Connector	Defaults to the first detected input
Video Cable Strain Relief	Equal to twice the weight of the monitor for five minutes
Video Cable Connector DB-15 Pin out	Compliant DDC 2B
Video Signals	1. Video RGB (Analog) Separate, Composite, and Sync on Green 2. TMDS (Digital)
Video Impedance	75 Ohms (Analog), 100 Ohms (Digital)
Maximum PC Video Signal	950 mV with no damage to monitor
Maximum Mac Video Signal	1250 mV with no damage to monitor
Sync Signals	TTL
DDC 2B	Compliant with Revision 1.3
Sync Compatibility	Separate Sync, Composite Sync, SOG
Video Compatibility	Shall be compatible with all PC type computers, Macintosh computers, and after market video cards
Resolution Compatibility	640 x 350*[1], 640 x 480, 720 x 400*[1] (640 x 400*), 800 x 600, 832 x 624, 1024 x 768, 1152 x 864, 1152 x 870*[2], 1280 x 720, 1280 x 960, 1280 x 1024 *1 The image vertical size might not be full screen. But the image vertical position should be at the center. *2 Under 1152x870@60Hz or 72Hz, the OSD information shows on “1152x864”
Exclusions	Not compatible with interlaced video

2-3 POWER SUPPLY

Internal Power Supply	Primary : LSE0204A1250 2nd source: Tiger power TOF 5001
Input Voltage Range	90 TO 264 VAC
Input Frequency Range	47.5 TO 63 HERTZ
Short Circuit Protection	Output can be shorted without damage
Over Current Protection	7.0 A typical at 12.0 VDC
Leakage Current	3.5mA (Max) at 254VAC / 60Hz
EFFICIENCY	80 % typical at 115VAC Full Load
Fuse	Internal and not user replaceable
Power Dissipation	50 Watts (typ)
Max Input AC Current	1.5 Arms @ 90VAC, 0.75 Arms @180VAC
INRUSH CURRENT (COLD START)	20 A @ 115VAC, 30 A(max) @230VAC
Power Supply Cold Start	Shall start and function properly when under full load, with all combinations of input voltage, input frequency, and operating temperature
Power Supply Transient Immunity	Shall be able to withstand an ANSI/IEEE C62.41-1980 6000V 200 ampere ring wave transient test with no damage
Power Supply Line Surge Immunity	Shall be able to withstand 1.5 times nominal line voltage for one cycle with no damage
Power Supply Missing Cycle Immunity	Shall be able to function properly, without reset or visible screen artifacts, when ½ cycle of AC power is randomly missing at nominal input
Power Supply Acoustics	The power supply shall not produce audible noise that would be detectable by the user. Audible shall defined to be in compliance with ISO 7779 (DIN EN27779:1991) Noise measurements of machines acoustics. Power Switch noise shall not be considered
US Type Power Cable	Separate 3-prong NEMA 5-15P type plug. Length = 1.8m. Connects to display. Color = Black
European Type Power Cable	Schuko CEE7-7 type plug. Length = 1.8m, Connects to display. Color = Black
CCC Type Power Cable(Color, Black)	Separate 3-prong type plug. Length = 1.8m. Connects to display.
PSE Type Power Cable(Color, Black)	Separate 2-prong NEMA 1-15P type plug. Length = 1.8m. Connects to display.
Power Saving Operation(Method)	VESA DPMS Signaling
Power Consumption	On Mode < 50 W (max) / 40 W (typ) Active Off < 2W
Recovery Time	On Mode = N/A, Active Off < 3 sec

2-4 ELECTRICAL REQUIREMENT

Horizontal / Vertical Frequency

Horizontal Frequency	24 – 82 KHZ
Vertical Refresh Rate	50 – 85* HZ. *1. FOR RESOLUTION 640X480, 800X600 AND 1024X768, THE VERTICAL REFRESH RATE UP TO 85HZ; FOR THE REST RESOLUTIONS, THE VERTICAL REFRESH RATE UP TO 75HZ. *2. ALL THE 85HZ MODE PICTURE QUALITY MIGHT BE WORSE THAN ≦75HZ MODE.
Maximum Pixel Clock	135 MHz
Sync Polarity	Independent of sync polarity.

Timing Table

Item	Timing	Analog	Digital
1	640 x 350 @ 70Hz, 31.5kHz	Yes	Yes
2	640 x 400 @ 60Hz, 31.5kHz	Yes	Yes
3	640 x 400 @ 70Hz, 31.5kHz	Yes	Yes
4	640 x 480 @ 50Hz, 24.7kHz	Yes	Yes
5	640 x 480 @ 60Hz, 31.5kHz	Yes	Yes
6	640 x 480 @ 67Hz, 35.0kHz	Yes	Yes
7	640 x 480 @ 72Hz, 37.9kHz	Yes	Yes
8	640 x 480 @ 75Hz, 37.5kHz	Yes	Yes
9	640 x 480 @ 85Hz, 43.27kHz	Yes	Yes
10	720 x 400 @ 70Hz, 31.5kHz	Yes	Yes
11	800 x 600 @ 56Hz, 35.1kHz	Yes	Yes
12	800 x 600 @ 60Hz, 37.9kHz	Yes	Yes
13	800 x 600 @ 75Hz, 46.9kHz	Yes	Yes
14	800 x 600 @ 72Hz, 48.1kHz	Yes	Yes
15	800 x 600 @ 85Hz, 53.7kHz	Yes	Yes
16	832 x 624 @ 75Hz, 49.7kHz	Yes	Yes
17	1024 x 768 @ 60Hz, 48.4kHz	Yes	Yes
18	1024 x 768 @ 70Hz, 56.5kHz	Yes	Yes
19	1024 x 768 @ 72Hz, 58.1kHz	Yes	Yes
20	1024 x 768 @ 75Hz, 60.0kHz	Yes	Yes
21	1024 x 768 @ 85Hz, 68.67kHz	Yes	Yes
22	1152 x 864 @ 75Hz, 67.5kHz	Yes	Yes
23	1152 x 870 @ 75Hz, 68.7kHz	Yes	Yes
24	1280 x 1024 @ 60Hz, 63.4kHz	Yes	Yes
25	1280 x 1024 @ 75Hz, 79.97kHz	Yes	Yes
26	1280x 720 @ 60Hz, 45kHz (HDTV)	Yes	Yes

Primary Presets
1280x1024 @ 60Hz

User Presets
Number of User Presets (recognized timings) Available: 10 presets total in FIFO configuration

Changing Modes
- Maximum Mode Change Blank Time for image stability : 5 seconds (Max), excluding "Auto Adjust" time
- Under DOS mode (640 x 350, 720 x 400 & 640 x 400), it should recall factory setting when execute "Auto Adjust" by "0-Touch™"
- The monitor needs to do "Auto Adjust" the first time a new mode is detected (see section "0-Touch™ Function Actions")
- While running Change Mode, Auto Adjust or Memory Recall, the image shall blank

2-5 FRONT PANEL CONTROLS AND INDICATORS

Front Panel Hardware Controls

Power Switch (Front Head)	Power Control, soft Power Switch.
Power LED (Front Head)	Green – ON Orange – Active Off Dark = Soft Power Switch OFF
Front Panel Controls (Head) [⏻] [1] [2] [▲] [▼]	[⏻] Power [1] Button 1 [2] Button 2

	[▲] Up arrow button [▼] Down arrow button Note: Power Button, Button 1 and Button 2 must be one-shot logic operation. (i.e. there should be no cycling)
Reaction Time	OSD must fully appear within 0.5s after pushing Button 1

Short Cuts Function from the button(s)

[1]	Main Menu
[2]	Input Select
[▼] or [▲]	to immediately activate Contrast menu. It should be change to Brightness OSD by push button [2]
[▼]+ [▲]	recall both of Contrast and Brightness to default
[1] + [2]	toggle 720x400 and 640x400 mode when input 720x400 or 640x400 mode
[1] + [▼] + [▲]	White Balance. (Not shown on user's guide)
[1] + [▼]	Power Lock
[1] + [▲]	OSD Lock
[1] + [⏻]	Factory Mode
Remark : All the short cuts function are only available while OSD off	

Main Menu Controls

Auto Image Adjust*[1]
Contrast/Brightness*[3]
Input Select
Analog 1, Analog 2, DVI-D
Color Adjust
9300K, 6500K(default), 5400K, 5000KUser Color [R, G, B]
Information
H Frequency, V Frequency, Resolution, Pixel Clock, Serial Number,
Model Number, "www.ViewSonic.com"]
Manual Image Adjust [Horizontal Size*[1], H./V. Position*[1], Fine Tune*[1], Sharpness*[2]
Setup Menu
Language [English, French, German, Spanish, Italian, Finnish, Japanese, Simplified Chinese, Traditional Chinese], Resolution Notice, Input Priority
[Analog1→ Analog 2→DVI-D, Analog1→DVI-D→ Analog 2, Analog 2→ Analog 1→DVI-D, Analog 2→DVI-D→ Analog 1, DVI-D→ Analog 1→ Analog 2, DVI-D→ Analog 2→ Analog 1, Disable], OSD Position, OSD Timeout, OSD Background, OSD Pivot*[4]
MEMORY RECALL

*[1] These functions are not available in Digital Mode
*[2] These functions are not available under Native Resolution Mode
*[3] These functions setting can be recalled to default by [▼]+[▲]
*[4] Both of automatically and manually OSD pivot should be available.

[Remark] Please refer to the detail in the Appendix C

Function descriptions

OSD Lock short cuts function for the buttons The OSD lock will be activated by pressing the front panel control buttons "(1), & (▲)" for 10 seconds. If the user then tries to access the OSD by pressing any of the buttons "1", "▼", "▲", "2" a message will appear on the screen for 3 seconds showing "OSD Locked". The OSD lock will be deactivated by pressing the front panel control buttons "(1), & (▲)" again for 10 seconds. Note1: When the OSD is locked will lock all functions. Note 2: Status bar indicating OSD Lock or Unlock is in progress and when complete it will indicate "OSD Locked" Note 3: OSD Lock should not lock Power Button and Power Lock function
Power Lock short cuts function for the buttons The power button lock will be activated by pressing the front panel control buttons "(1), & (▼)" for 10 seconds. Locking the power button means that the user won't be able to turn off the LCD while the power button is locked. If the user presses the power button while it is locked, a message will appear on the screen for 3 seconds showing "Power Button Locked". It also means that with the power button locked, the LCD would automatically turn back "On" when power is restored after a power failure. If the power button is not in the locked mode, then power should return to it's previous state when power is restored after a power failure. The power button lock will be deactivated by pressing the front panel control buttons "(1), & (▼)" again for 10 seconds. Note 1: Status bar indicating Power Button lock or unlock is in progress and when complete it will indicate "Power Button Locked" Note 2: Power should only be lockable in the "On State"
Memory Recall Actions Memory Recall action on the analog and digital mode as below 1. Recall white balance to factory setting 2. Set the factory defaults as shown in Section 4-8 3. Clean all the mode setting buffer 4. Execute Auto Image Adjust Note: Memory Recall should have no effect for Language, Power Lock, User Color Settings
Resolution Notice Actions 1. Resolution Notice OSD should show on screen after changing to non-native mode for 30 sec 2. The OSD should disappear after 10 sec or by pushing button [1] or [2] Resolution Notice function should be disabled when push button [2] under Resolution Notice OSD
0-Touch™Function Actions 1. Execute Auto Image Adjust when new mode detected, and save the settings to buffer for further use 2. It should be reset by Memory Recall function (Should not reset by power off, power unplug and others)
OSD Auto Save The OSD shall save new settings when it is turned off by the user or when it times out. There shall not be a separate save

2-6 TFT LCD PANEL

Panel Source Identify

(1) ID label - The panel code "S" for Samsung panel or "F" for Fujitsu panel should be shown on the lower right side of ID label. (see Figure 2)
(2) UPC label - The panel code "S" for Samsung panel or "F" for Fujitsu panel should be shown on the lower right side of UPC label. (see Figure 3)
(3) Main board - The panel code "S" for Samsung panel or "F" for Fujitsu panel should be shown on the main board by F/W version sticker or silkscreen.

Panel Characteristics :

1st Source Panel

Model number	Samsung LTM190E1-L01
Type	PVA type with LVDS interface
Active Size	376.32 (H) x 301.06 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.294 mm
Glass Treatment	Anti Glare (Hard coating 4H)
# of Backlights	4 CCFL edge-light (2 top / 2 bottom)
Backlight Life	50,000 Hours (Min)
Luminance (Center) – CT = 6500K, Contrast/ Brightness = Max	250 cd/m2 (Typ after 30 minute warm up) 220 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	75% (Min) Entire Area
Contrast Ratio	600:1 (typ), 400:1 (min)
Color Depth	16 million colors (8 bit)
Viewing Angle (Horizontal, CR>10)	Typical: 170º
Viewing Angle (Vertical, @ CR>10)	Typical: 170º
Response Time 10%-90% @ Ta=25°C	25 ms (Tr= 15 ms, Tf = 10 ms) (typ) 35 ms (Tr= 20 ms, Tf = 15 ms) (max)
Panel Defects	Please see Panel Quality Specifications.

2nd Source Panel

Model number	Fujitsu FLC48SXC8V-11AA
Type	MVA type with LVDS interface
Active Size	376.32 (H) x 301.06 (V)
Pixel Arrangement	RGB Vertical Stripe
Pixel Pitch	0.294 mm
Glass Treatment	Anti Glare (Hard coating 2H)
# of Backlights	4 CCFL edge-light (2 top / 2 bottom)
Backlight Life	50,000 Hours (Min)
Luminance (Center) – CT = 6500K, Contrast/ Brightness = Max	300 cd/m2 (Typ after 30 minute warm up) 210 cd/m2 (Min after 30 minute warm up)
Brightness Uniformity	70% (Min) Entire Area
Contrast Ratio	700:1 (typ), 400:1 (min)
Color Depth	16 million colors (8 bit)
Viewing Angle (Horizontal, CR>10)	Minimum: 170º (±85º)
Viewing Angle (Vertical, @ CR>10)	Minimum: 170º (±85º)
Response Time 10%-90% @ Ta=25°C	16 ms (typ) 34 ms (max)
Mercury	3.0 mg (Max) per lamp
Panel Defects	Please see Panel Quality Specifications.

2-7 IMAGE PERFORMANCE

Factory Defaults

Item	Defaults	Item	Defaults
Contrast	50%	OSD H. Position	50%
Brightness	100%	OSD V. Position	50%
Color Temperature	6500K	OSD Time Out	15 Sec

Sharpness	100%	OSD Background	On
Input Priority	Analog 1→ Analog 2→DVI-D	Resolution Notice	Enabled
720x400/640x400	720x400		

Luminance

Ly (Max) –Condition: Contrast / Brightness = 100% Color Temperature = 6500K	Same as the Luminance in section, 4-6 "TFT LCD PANEL"
Ly (Def) –Condition: Contrast / Brightness = Default Color Temperature = 6500K	Lv (Def) / Lv (Max) x 100% ≧ 90%

Display Size

Horizontal Display Size, Primary Preset	Full Screen
Vertical Display Size, Primary Preset	Full Screen

Saturation

Contrast / Brightness = Default Test pattern = 32-gray	No visible saturation
Contrast / Brightness = 100% Test pattern = 32-gray	6~8 - level saturation

Preset Color Temperatures

Preset 1	CCT (typ) = **9300K** (Wx = 0.283, Wy = 0.298) CCT (max) = 10925K, CCT (min) = 8086K
Preset 2 (Primary)	CCT (typ) = **6500K** (Wx = 0.313, Wy = 0.329) CCT (max) = 7180K, CCT (min) = 5931K
Preset 3	CCT (typ) = **5400K** (Wx = 0.335, Wy = 0.350) CCT (max) = 5920K, CCT (min) = 4935K
Preset 4	CCT (typ) = **5000K** (Wx = 0.346, Wy = 0.359) CCT (max) = 5400K, CCT (min) = 4653K
Preset Color Temperature Adjustability	Each color preset shall be adjustable. Red, Green, and Blue shall be individually controlled.

Video Cards Compatibility

Peaking Performance : Peaking is not adjustable

Raster Artifacts

- Video Artifacts : No visible streaking, sag, or smearing artifacts when driven by the specified video cards in the primary mode and after user adjustment to best condition
- Power Supply, and Grounding Artifacts : No visible artifacts in any specified video mode within the horizontal or vertical frequency range of the monitor
- Temperature Drift : Image shall not drift or lose fine-tune adjustment

2-8 MECHANICAL

Dimension (Desktop)

Width	416 mm (16.4 inch)
Height	460 mm (18.1 inch)
Depth	238 mm (9.4 inch)
Monitor Weight	7.5 kg / 16.5 lbs

Dimension (Head Only / Wall Mount)

Width	416 mm (16.4 inch)
Height	341 mm (13.4 inch)
Depth	55 mm (2.2 inch)
Monitor Weight	5.1 kg / 11.22 lbs

Ergonomics

Tilt Up	From 0º up to ≧20º+/-2º
Tilt Down	From 0º down to -3º ~ -5 º
Swivel Right	45 degrees
Swivel Left	45 degrees
Height Adjust	0~110 mm
Pivot	0~90 degrees (Clockwise)

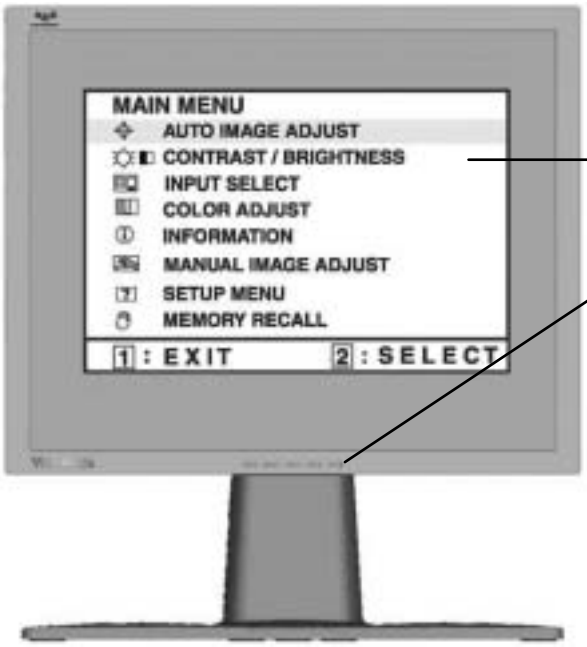
Cabinet Material

Display Head Plastic Material	PC+ABS (meets UL94V0 degree)
Neck/Base Plastic Material	PC+ABS (meets UL94V0 degree)
Internal Plastic Cabinet Components	All internal plastic cabinet components shall be in compliance with the requirements of TCO'03 (VP191s) / TCO'99 (VP191b/VP191b-H)
Front Bezel Color	The reference for the bezel is the Silver (VP191s) / Midnight-Gray (VP191b/VP191b-H) color chip provided by ViewSonic The color difference between any two cabinet components shall be less than 0.80 "Delta E", in the 1976 CIE L*a*b Colorspace.
Neck, Base, Speaker Cover, Rear Cover and Rear Logo Color	The reference for the Neck, Base, Speaker Cover, Rear Cover and Rear Logo Color is the Black (VP191s) / Midnight-Gray (VP191b /VP191b-H) color chip provided by ViewSonic. The color difference between any two cabinet components shall be less than 0.80 "Delta E", in the 1976 CIE L*a*b Colorspace.
Cabinet Color Drift Due To UV-Light	The color drift due to UV-Light shall be less than 3.0 "Delta E" in the 1976 CIE L*a*b colorspace. Testing shall be performed according to the requirements of ASTM Test Method D4459-93.
Cabinet Texture	Mold-Tech # 11010 used on all external textured surfaces.
Samples	The supplier shall submit textured color chips, plastic material specifications, and Material Safety Data Sheets for approval.

3. Front Panel Function Control Description

Adjusting the Screen Image

Use the buttons on the front control panel to display and adjust the OnView® controls which display on the screen. The OnView controls are explained at the top of the next page.



Main Menu
with OnView controls

Front Control Panel shown below in detail

Scrolls through menu options and adjusts the displayed control.

Also a shortcut to display the Contrast adjustment control screen.

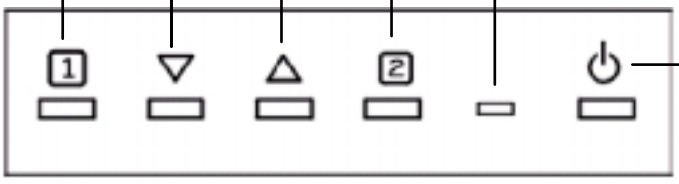
Displays the control screen for the highlighted control.

Also toggles between two controls on some screens.

Also a shortcut to toggle analog and digital connection.

Displays the Main Menu or exits the control screen and saves adjustments.

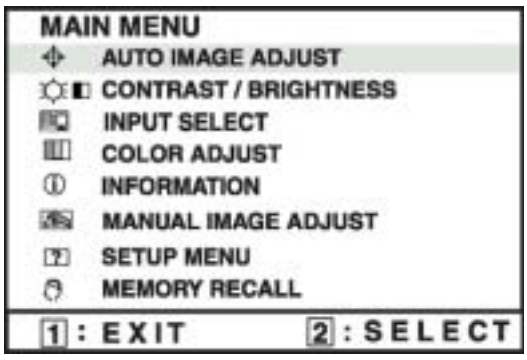
Power light
Green = ON
Orange = Power Saving



Power On/Off

Do the following to adjust the screen image:

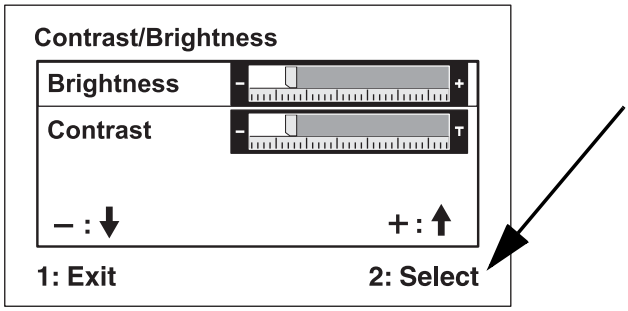
1 To display the Main Menu, press button [1].



NOTE: All OnView menus and adjustment screens disappear automatically after about 15 seconds. This is adjustable through the OSD timeout setting in the setup menu.

2 To select a control you want to adjust, press ▲ or ▼ to scroll up or down the Main Menu.

3 After the control is selected, press button [2]. A control screen like the one shown below appears.



The command line at the bottom of the control screen tells what to do next from this screen. You can toggle between control screens, adjust the selected option, or exit the screen.

4 To adjust the control, press the up ▲ or down ▼ buttons.

5 To save the adjustments and exit the menu, press button [1] *twice*.

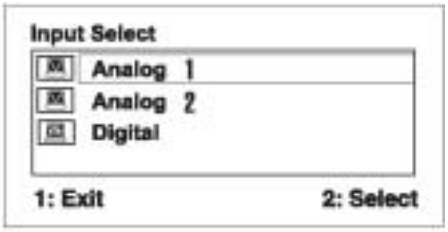
The following tips may help you optimize your display:

- Adjust your computer's graphic card so that it outputs a video signal 1280 x 1024 @ 60Hz to the LCD display. (Look for instructions on "changing the refresh rate" in your graphic card's user guide.)
- If necessary, make small adjustments using H POSITION and V POSITION until the screen image is completely visible. (The black border around the edge of the screen should barely touch the illuminated "active area" of the LCD display.)

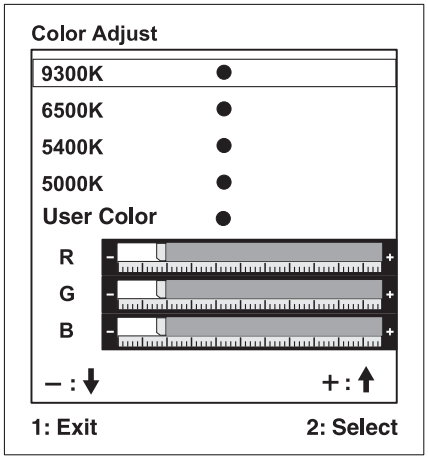
Main Menu Controls

Adjust the menu items shown below by using the up ▲ and down ▼ buttons.

Control	Explanation
	Auto Image Adjust sizes and centers the screen image automatically.
	Contrast adjusts the difference between the image background (black level) and the foreground (white level).
	Brightness adjusts background black level of the screen image.
	Input Select toggles between inputs if you have more than one computer connected to the VP191/VP191b/VP191s.



	Color Adjust provides several color adjustment modes: preset color temperatures and **RGB** which allows you to adjust red (**R**), green (**G**), and blue (**B**) separately. The factory setting for this product is 6500K (6500 Kelvin).



9300K — Adds blue to the screen image for cooler white (used in most office settings with fluorescent lighting).

6500K — Adds red to the screen image for warmer white and richer red.

5400K — Adds green to the screen image for a darker color.

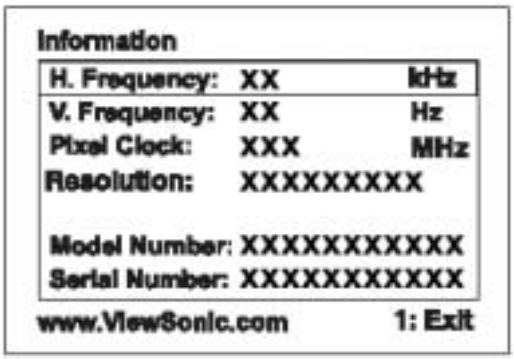
5000K — Adds blue and green to the screen image for a darker color.

User Color— Individual adjustments for red (R), green (G), and blue (B).

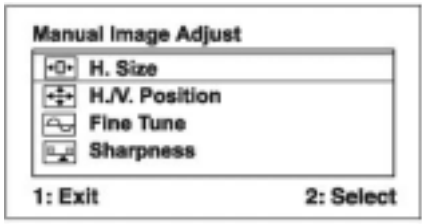
1 To select color (R, G or B) press button [2].
2 To adjust selected color, press ▲ or ▼.

Important: If you select RECALL from the Main Menu when the product is set to a Preset Timing Mode, colors return to the 6500K factory preset.

Information displays the timing mode (video signal input) coming from the graphics card in your computer, the LCD model number, the serial number, and the ViewSonic website URL. See your graphic card's user guide for instructions on changing the resolution and refresh rate (vertical frequency).
NOTE: VESA 1280 x 1024 @ 60Hz (recommended) means that the resolution is 1280 x 1024 and the refresh rate is 60 Hertz.

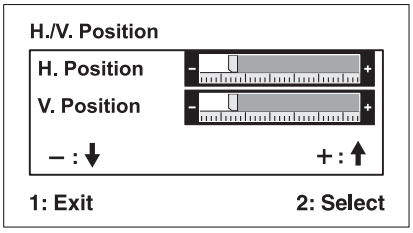


Manual Image Adjust Sub-menu



H. Size (Horizontal Size) adjusts the width of the screen image.

H./V. Position (Horizontal/Vertical Position) moves the screen image left or right and up or down.



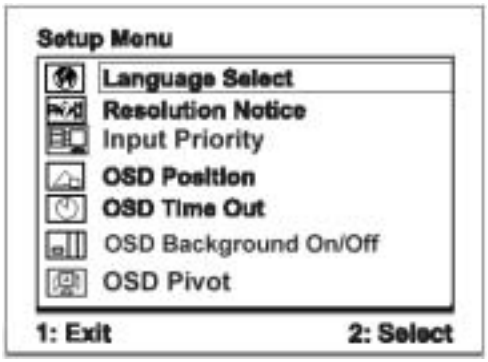
Control	Explanation

Fine Tune sharpens the focus by aligning the text and/or graphic characters.

NOTE: Try Auto Image Adjust first.

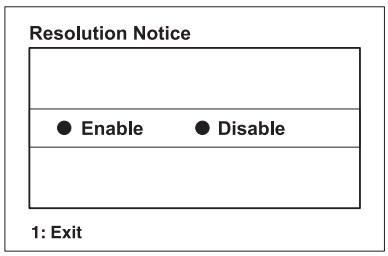
Sharpness adjusts the clarity and focus of the screen image.

Setup menu displays the menu shown below:

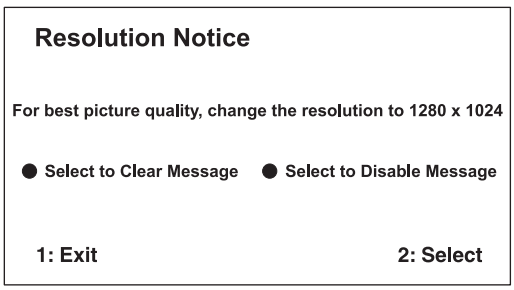


Language allows you to choose the language used in the menus and control screens.

Resolution Notice allows you to enable or disable this notice.



If you enable the Resolution Notice shown above and your computer is set at a resolution other than 1280 x 1024, the following screen appears.


Resolution Notice
For best picture quality, change the resolution to 1280 x 1024
Select to Clear Message
Select to Disable Message
1: Exit
2: Select

Control	Explanation

Input Priority If multiple computers will be connected to the display, this function can be used to select which computer has priority Depending on the selected Input Priority, the display will do a one time detection for available inputs when first powered on.

For example: If the Input Priority setting is D-SUB=>D-SUB2=>DVI, then the first priority will be given to D-SUB1 when the display turns on. If there is no video signal on D-SUB1, then the next priority will be given to D-SUB-2, etc… In the case of only one signal being present at the three inputs, then the display will automatically detect and display that signal.

The Input Priority setting can also be disabled. In this case, the input will return to the last setting when the display is first turned on. The user will need to control all the port settings manually under this condition. Inputs can be switched quickly by pressing the "Up" arrow button on the front panel controls.

OSD Position allows you to move the on-screen display menus and control screens.

OSD Timeout sets the length of time the on-screen display screen is displayed. For example, with a “30 second” setting, if a control is not pushed within 30 seconds, the display screen disappears.

OSD Background On/Off allows you to turn the On-Screen Display background On or Off.

OSD Pivot This function is used to rotate the OSD menu, when the display is changed from Landscape to Portrait mode.

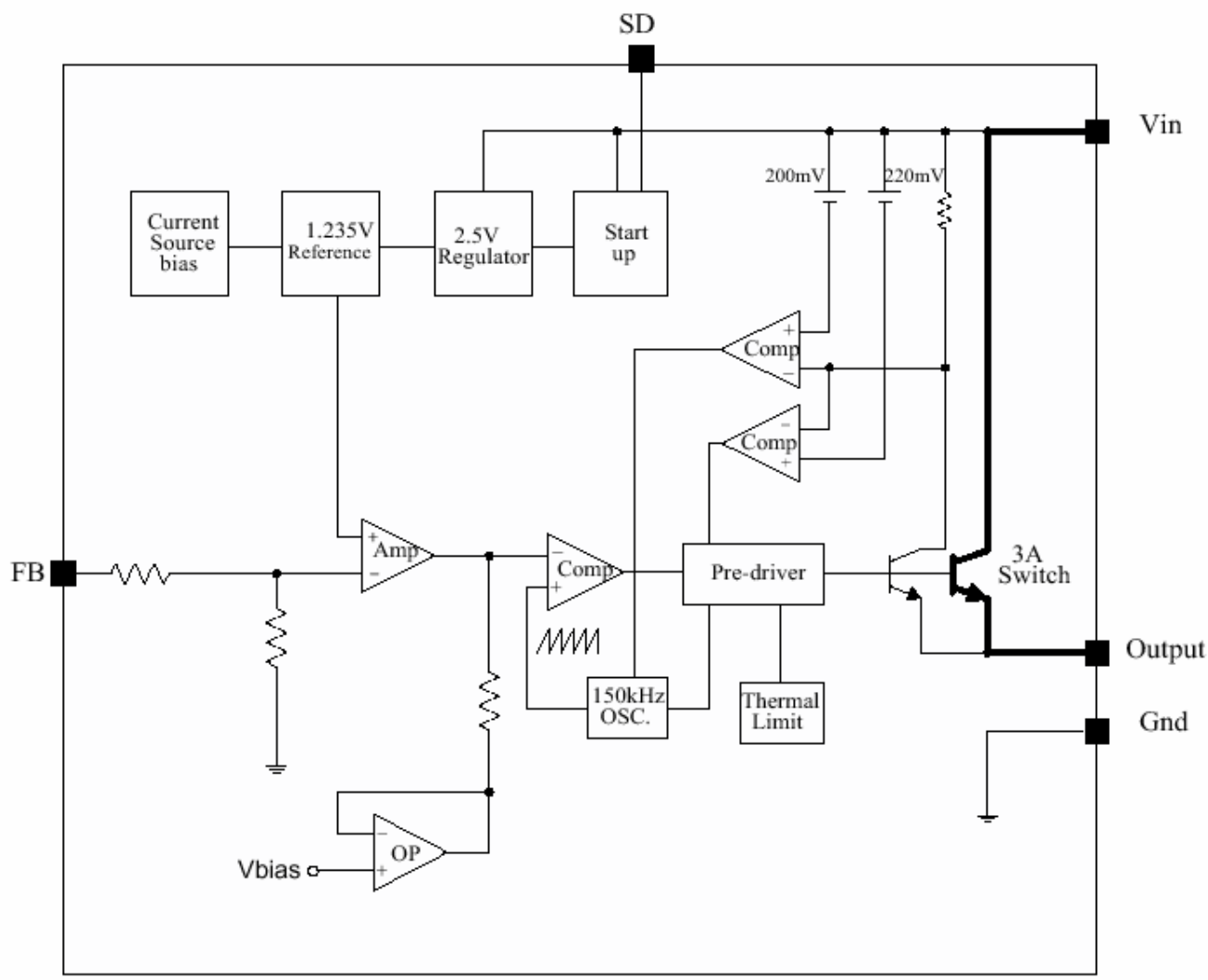
Memory Recall returns the adjustments back to factory settings if the display is operating in a factory Preset Timing Mode listed in the Specifications of this manual.

4. Circuit Description

1. Power supply (DC/DC Converter)

The AP1501 is monolithic IC designed for M/B DC/DC converter, with the ability of driving a 3A load without any additional transistor component.

The AP1501 operates at a switching frequency of 150 kHz and thus allows smaller-sized filter components than would be needed with lower frequency switch regulator.

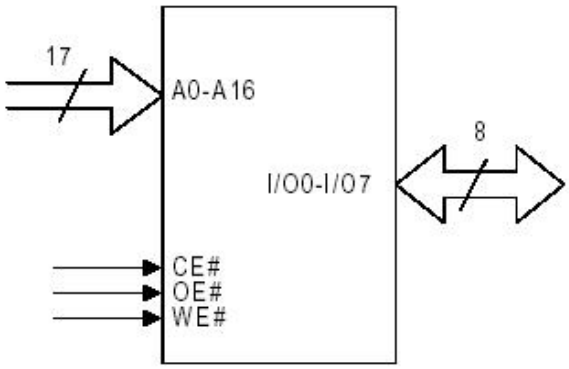


2. Flash Memory

The Pm39LV010R is a 1 Megabit, 3.3 Volt-only Flash Memory organized as 131,072 bytes of 8 bits each. This device is designed to use a 3.0 Volt to 3.6 Volt power supply to perform in-system programming.
The 1 Megabit memory array is divided into thirty-two uniform blocks of 4 Kbytes each for data and/or code storage.

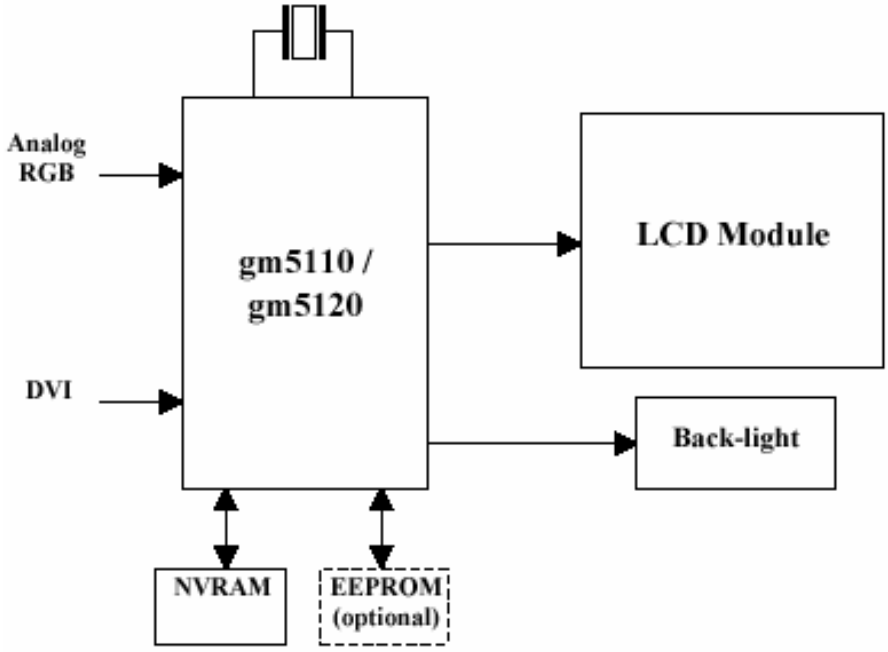
The block architecture allows users to flexibly make chip erase or block erase operation. The block erase feature allows a particular block to be erased and reprogrammed without affecting the data in other blocks. After the device performs chip erase or block erase operation, it can be reprogrammed on a byte-by-byte basis.

LOGIC SYMBOL



3. GM5120

The gm5110/20 is a graphic processing IC for Liquid Crystal Display (LCD) monitors at XGA/SXGA resolution. It provides all key IC functions required for the highest quality LCD monitors. On-chip functions include a high-speed triple-ADC and PLL, Ultra-Reliable DVI ™ receiver, a high quality zoom and shrink scaling engine, an on-screen display (OSD) controller, digital color controls and an on-chip microcontroller (OCM). With this level of integration, the gm5110/20 devices simplify and reduce the cost of LCD monitors while maintaining a high-degree of flexibility and quality.



gm5110/5120 System Design Example

4. LVDS (THC63LVDM83A)

The THC63LVDM83A transmitter converts 28 bits of CMOS/TTL data into LVDS (Low Voltage Differential Signaling) data stream. A phase-locked transmit clock is transmitted in parallel with the data streams over a fifth LVDS link. The HC63LVDM83A can be programmed for rising edge or falling edge clocks through a dedicated pin. The THC63LVDF84A receiver converts the LVDS data streams back into 28 bits of CMOS/TTL data with falling edge clock. At a transmit clock frequency of 85MHz, 24 bits of RGB data and 4 bits of LCD timing and control data (HSYNC, VSYNC, CNTL1, CNTL2) are transmitted at a rate of 595 Mbps per LVDS data channel.

5. Adjusting Procedure

5-1 Function Test and Alignment Procedure

5-1-1 Product

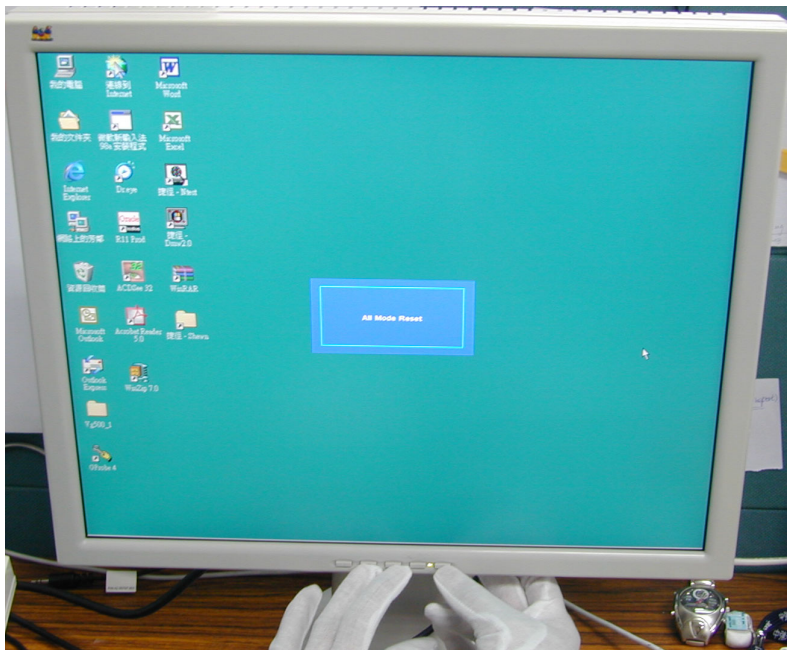
19” LCD Monitor

5-1-2 Test Equipment

Color Video Signal & Pattern (or PC with SXGA resolution)

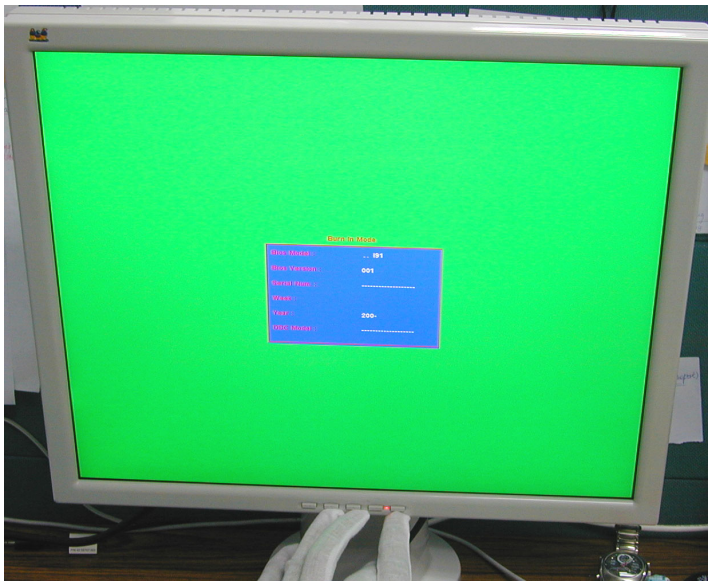
5-1-3 Hot Key

1). All Mode Reset:
Press “ ▼ ”, “▲ ” buttons simultaneously and “Power on” **with signal**, hold on for 3 seconds. Then the screen will show “All Mode Reset”.



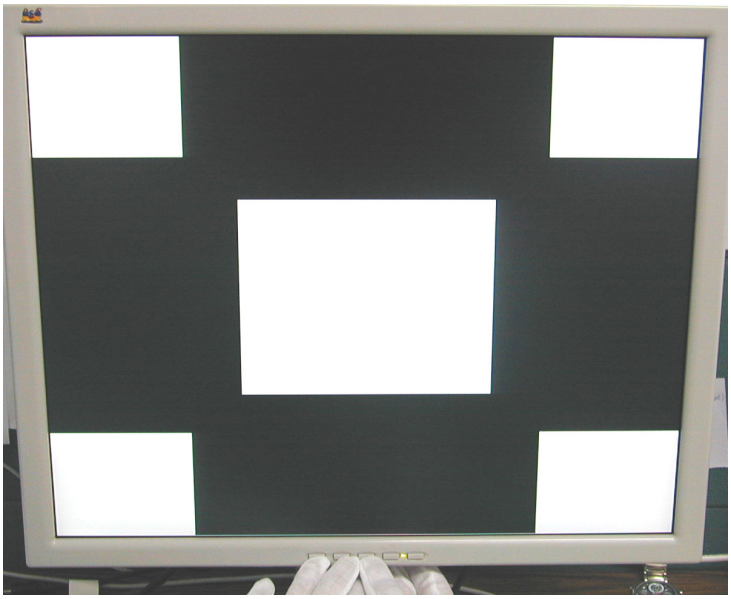
2). Burn In Mode:

Press " ▼", "▲ " buttons simultaneously and "Power on" **without signal**, hold on for 3 seconds. Then the screen will show "Burn In Mode". Press "1 " button, you can find the information about this monitor.



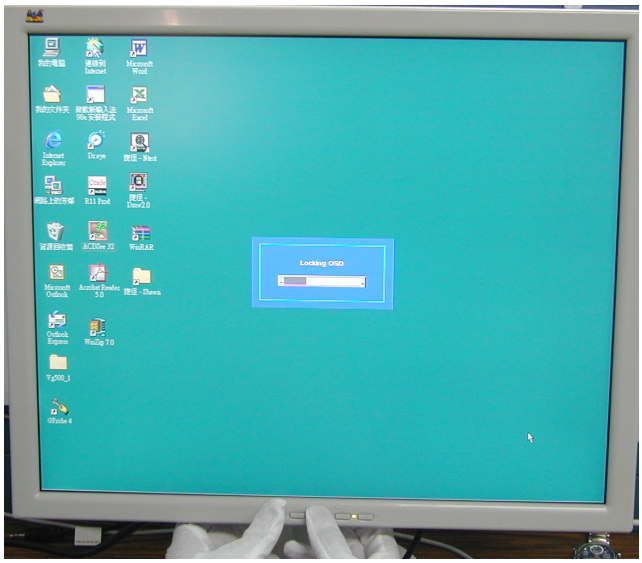
3). White Balance:

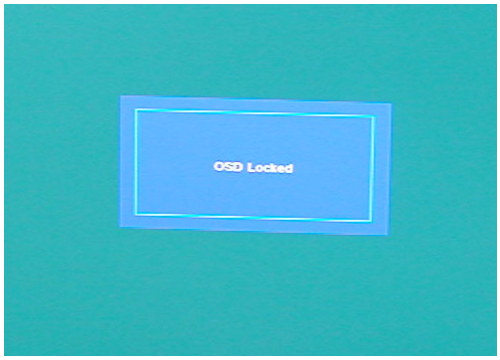
Set the screen on 640*480@60Hz resolution pure black and white pattern, no other color. Press " 1", "▲ " and "▼ " simultaneously.



4). OSD Lock :

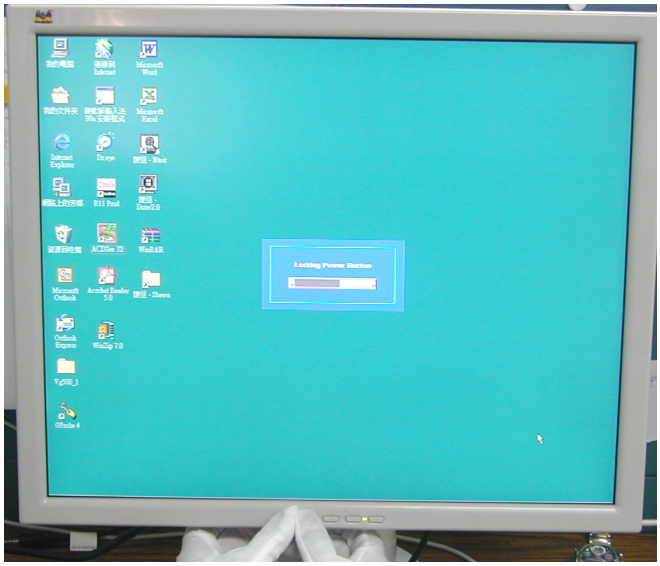
Press “ 1 ” and “ ▲” buttons simultaneously for 10 seconds, and the OSD will lock. Repeat the action, and the OSD will unlock.

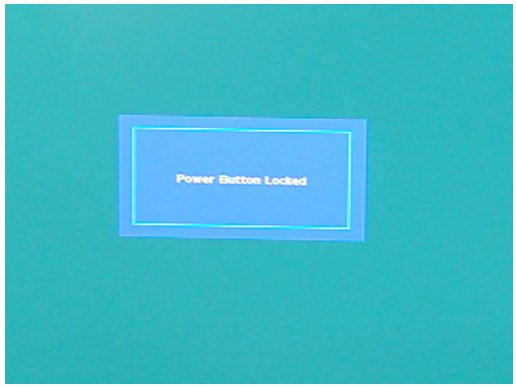




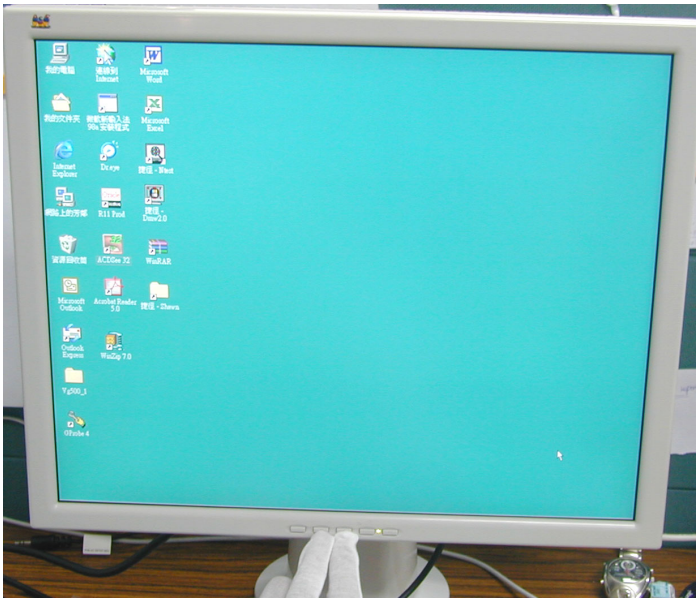
5). Power Lock :

Press “ 1 ” and “ ▼” buttons simultaneously for 10 seconds, and the Power will lock. Repeat the action, and the Power will unlock.





6). Contrast and Brightness Recall :
Press “ ▲” and “ ▼” buttons simultaneously, and the contrast and brightness will restore the factory defaults.



7). Test Mode(720*400)/Graphic Mode (640*400) exchange :
Press “ 1” and “ 2” buttons simultaneously.

5-1-4 Test Condition

Before function test and alignment, each LCD Monitor should be run-in and warmed-up for at least 30 minutes with the following conditions:

a). In room temperature,

b). With full-white screen, R.G.B. Black

c). With cycled display modes,

640*480(H=43.27kHz,V=85Hz)

800*600(H=53.7kHz,V=85Hz)

1024*768(H=68.67kHz,V=85Hz)

1280*1024(H=79.97kHz,V=75Hz)

5-1-5 Test Display Modes & Pattern

- **Compatible Modes**

Analog :

640 x 350 @ 70Hz, 31.5kHz
640 x 480 @ 60Hz, 31.5kHz
640 x 480 @ 67Hz, 35.0kHz
640 x 480 @ 75Hz, 37.5kHz
640 x 480 @ 72Hz, 37.9kHz
640 x 480 @ 85Hz, 43.27kHz
720 x 400 @ 70Hz, 31.5kHz
800 x 600 @ 56Hz, 35.1kHz
800 x 600 @ 60Hz, 37.9kHz
800 x 600 @ 75Hz, 46.9kHz
800 x 600 @ 72Hz, 48.1kHz
800 x 600 @ 85Hz, 53.7kHz
832 x 624 @ 75Hz, 49.7kHz
1024 x 768 @ 60Hz, 48.4kHz
1024 x 768 @ 70Hz, 56.5kHz
1024 x 768 @ 72Hz, 58.1kHz
1024 x 768 @ 75Hz, 60.0kHz
1024 x 768 @ 85Hz, 68.67kHz
1152 x 870 @ 75Hz, 68.6kHz,
1280 x 1024 @ 60Hz, 63.4kHz
1280 x 1024 @ 75Hz, 79.97kHz
1280 x 720 @ 60Hz, 45kHz

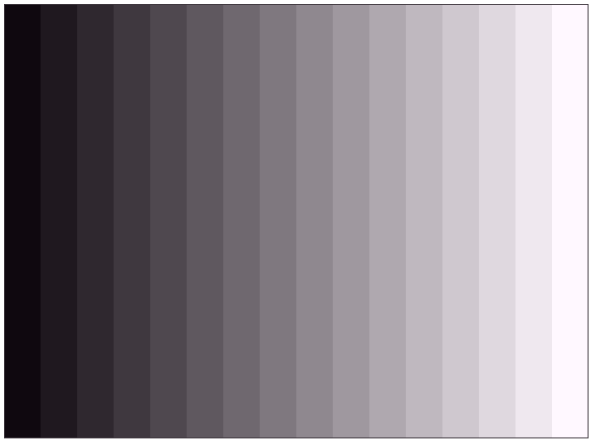
Digital :

640 x 350 @ 70Hz, 31.5kHz
640 x 400 @ 70Hz, 31.5kHz
640 x 480 @ 60Hz, 31.5kHz
640 x 480 @ 75Hz, 37.5kHz
640 x 480 @ 72Hz, 37.9kHz
640 x 480 @ 85Hz, 43.27kHz
720 x 400 @ 70Hz, 31.5kHz
800 x 600 @ 56Hz, 35.1kHz
800 x 600 @ 60Hz, 37.9kHz
800 x 600 @ 75Hz, 46.9kHz
800 x 600 @ 72Hz, 48.1kHz
800 x 600 @ 85Hz, 53.7kHz
1024 x 768 @ 60Hz, 48.4kHz
1024 x 768 @ 70Hz, 56.5kHz
1024 x 768 @ 72Hz, 58.1kHz
1024 x 768 @ 75Hz, 60.0kHz
1024 x 768 @ 85Hz, 68.67kHz
1152 x 870 @ 75Hz, 68.6kHz,
1280 x 1024 @ 60Hz, 63.4kHz
1280 x 1024 @ 75HZ, 79.97khz
1280 x 720 @ 60Hz, 45kHz

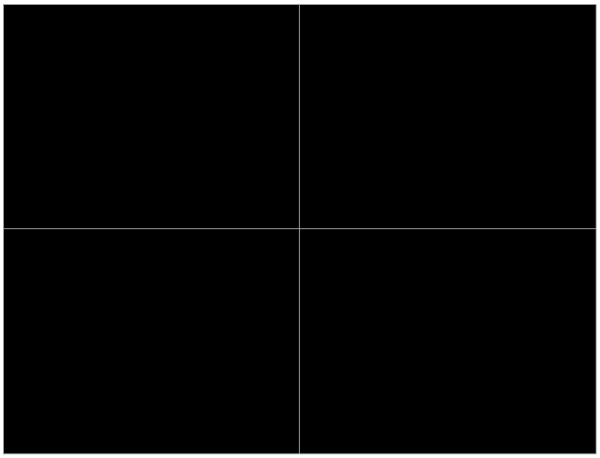
- **Funcation Test Display Patterm**

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise.	Figure 1
2	Contrast/Brightness	16 Gray Scale	16 gray levels should be distinguishable.	Figure 2
3	Boundary	Horizontal & Vertical Thickness	Horz. and Vert. position of video should be adjustable to be within the screen frame.	Figure 3
4	R,G,B, Color Performance	R.G.B Color Intensities	Contrast of each R,G,B, color should be normal.	Figure 4,5,6
5	Screen Uniformity & Flicker	Full White	Should be compliant with the spec.	Fgure 7
6	Dead Pixel/Line	White Screen Dark Screen	The numbers of dead pixels should be compliant with the spec.	Figure 7,8
7	White Balance	White & Black Pattern	The screen must have the pure white and black pattern, no other color.	Figure 9

Fine Line Morie Pattern (Figure 1)



Gray Scale Pattern (Figure 2)

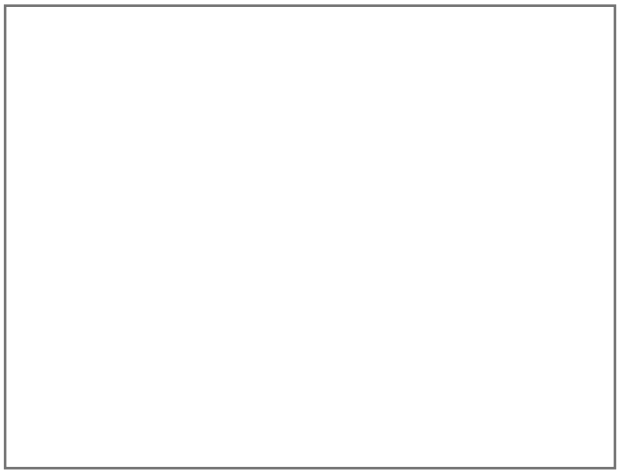


Horizontal & Vertical Thickness Pattern (Figure 3)

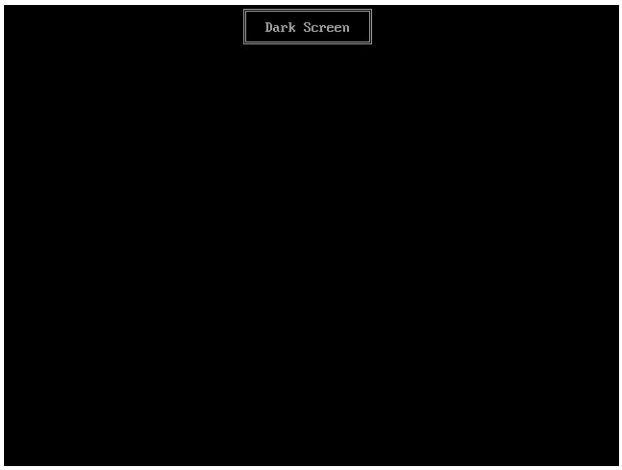
R. Color Pattern (Figure 4)

G. Color Pattern (Figure 5)

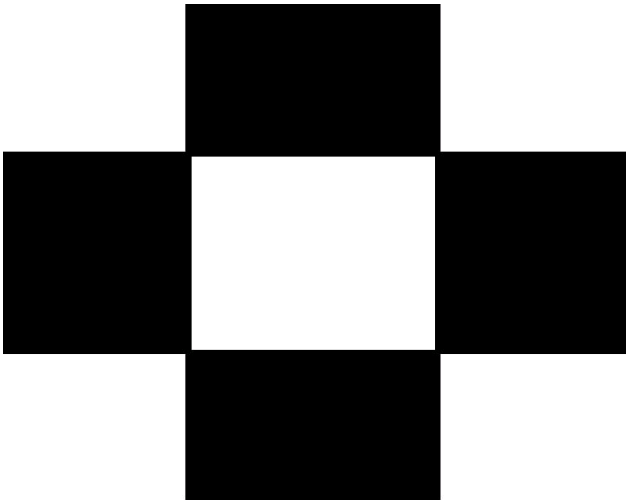
B. Color Pattern (Figure 6)



Full White Pattern (Figure 7)



Dark Screen Pattern (Figure 8)



Black-White Pattern (Figure 9)

5-1-6 Function Test and Alignment Procedure

- **All Modes Reset**

  You should do "All Mode Reset" (Refer to Chapter 6-3) first. This action will allow you to erase all end-user's settings and restore the factory defaults.

- **Auto Image Adjust**

  Please select and enter "**Auto Image Adjust**" function on Main Menu to see if it is workable. The "**Auto Image Adjust**" function is aimed to offer a better screen quality by built-in ASIC. For optimum screen quality, the user has to adjust each function manually.

- **Firmware and DDC**

  Test Pattern: Burn In Mode (Refer to Chapter 6-3)
  - Make sure the F/W is the latest version.
  - Make sure the S/N is the same as the Spec. label.
  - Make sure the model name is correct.

- **Fine Tune and Sharpness**

  Test Signal: 1280*1024@60Hz

  Test Pattern: Line Moire Pattern
  - Check and see if the image has noise and focus performs well eliminate visual line bar.
  - If not, readjust by the following steps :
    (a) Select and enter "**Fine Tune**" function on "**Manual Image Adjust**" to adjust the image to eliminate visual wavy noise.
    (b) Then, select and enter "**Sharpness**" function to adjust the clarity and focus of the screen image.

- **Boundary**

  Test Signal : 1280*1024@60Hz

  Test Pattern : Horizontal & Vertical Line Thickness Pattern
  - Check and see if the image boundary is within the screen frame.
  - If not, readjust by the following steps :
    (a) Select and enter "**Manual Image Adjust**" function on OSD Main Menu.
    (b) Then, select and enter "**Horizontal Size**" or "**Horizontal/Vertical Position**" function to adjust the video boundary to be full scanned and within screen frame.

- **White Balance**

  Test Signal : 1280*1024@60Hz

  Test Pattern: Full White and Black Pattern
  - Refer to Chapter 6-3

- **R,G,B, Color Contrast**

  Test Signal: 1280*1024@60Hz

  Test Pattern: R,G,B Color Intensities Pattern and 16 Gray Scale Pattern

  - Check and see if each color is normal and distinguishable.
  - If not, please return the unit to repair area.

- **Screen Uniformity and Flicker**

  Test Signal: 1280*1024@60Hz

  Test Pattern: Full White Pattern

  - Check and see if it is in normal condition.

- **Dead Pixel and Line**

  Test Signal: 1280*1024@60Hz

  Test Pattern: Dark and White Screen Pattern

  - Check and see if there are dead pixels on LCD panel with shadow gauge and filter film.
  - The total numbers and distance of dead pixels should be compliant with the spec.

- **Check for Secondary Display Modes**

  Test Signal:

  Analog : 640*350@70Hz;640*480@60/67/72/75/85Hz;
  720*400@70Hz;800*600@56/60/72/75/85Hz;
  832*624@75Hz,1024*768@60/70/72/75/85Hz;
  1152*870@75Hz,1280*720@60Hz,1280*1024@60/75Hz

  Digital : 640*350@70Hz;640*450@75Hz;640*480@60/72/75Hz;
  720*400@70Hz;800*600@56/60/72/75/85Hz;
  1024*768@60/70/72/75/85Hz;1152*870@75Hz,
  1280*720@60Hz,1280*1024@60/75Hz

  - Normally when the primary mode 1280*1024@75Hz is well adjusted and compliant with the specification, the secondary display modes will also be compliant with the spec. It is still necessary to check with the **general test pattern** to make sure every secondary is compliant with the specification.

- **All Modes Reset**

  After final QC step, we have to erase all saved changes again and restore the factory defaults. You should do “All Mode Reset” (Refer to Chapter 6-3) again.

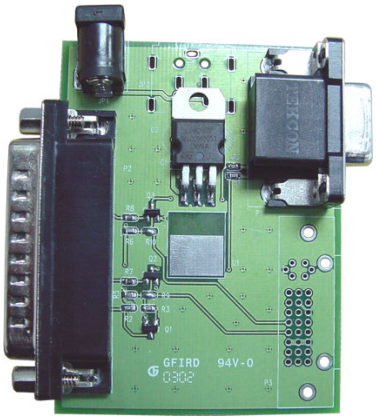
- **Power Off Monitor**

  Turn off monitor by pressing “Power” button, and turn off the “Switch” that is back of the monitor.

5-2 Firmware Upgrade Procedure

5-2-1 Equipment Needed

- VP191 Series Monitor
- Fixture for Firmware Upgrade
- Power Adapter (P/N : 47.58201.001) *1 for Fixture
- VGA Cable (P/N : 42.59901.008) *1
- PC (Personal Computer)
- LTP Cable (P/N : 42.59906.001) *1
- Firmware Upgrade Program
- One additional monitor for checking the program execution

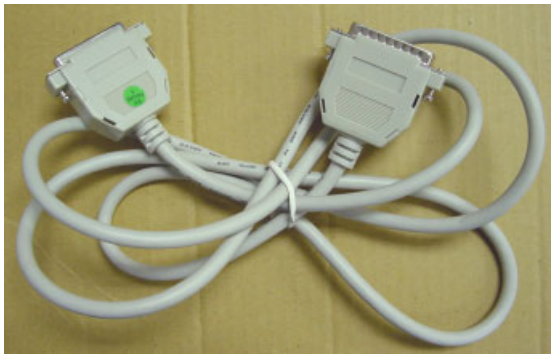


Fixture

PC

VGA Cable (P/N: 42.59901.008)

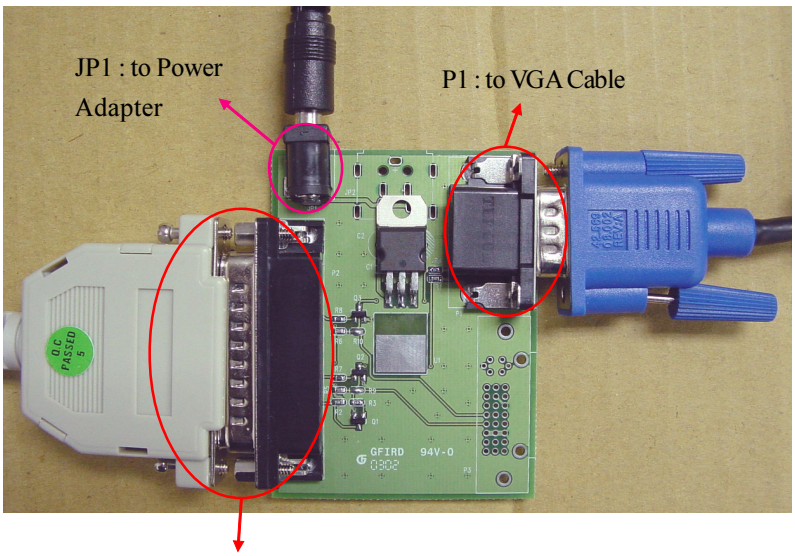
Power Adapter for Fixture
(P/N:47.58201.001)



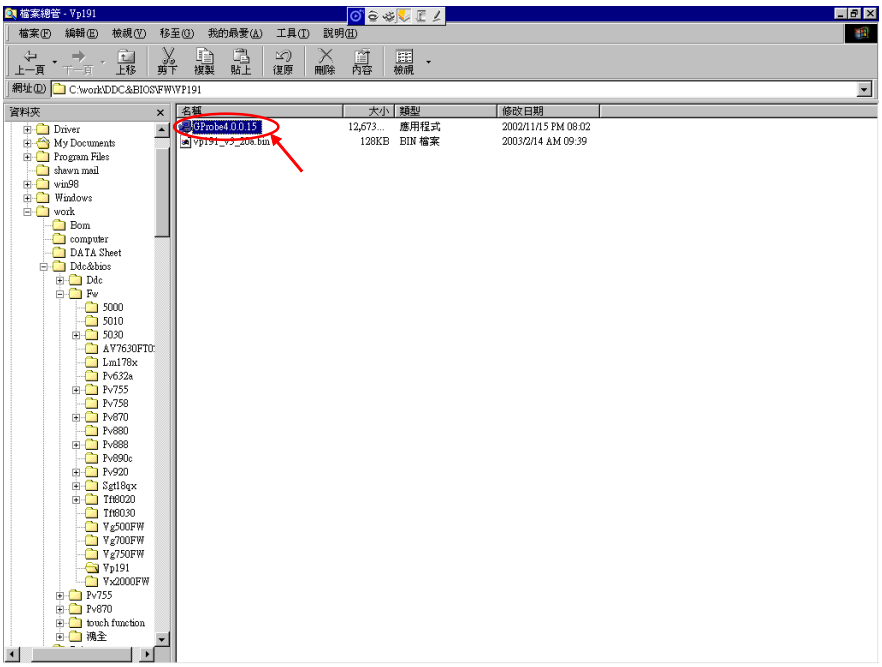
LTP Cable (P/N: 42.59906.001)

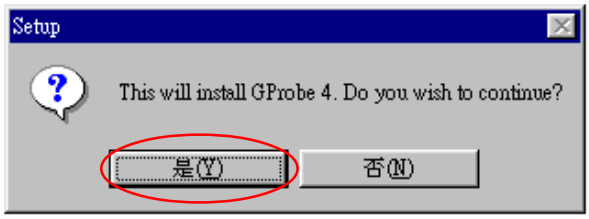
5-2-2 Set-up Procedure

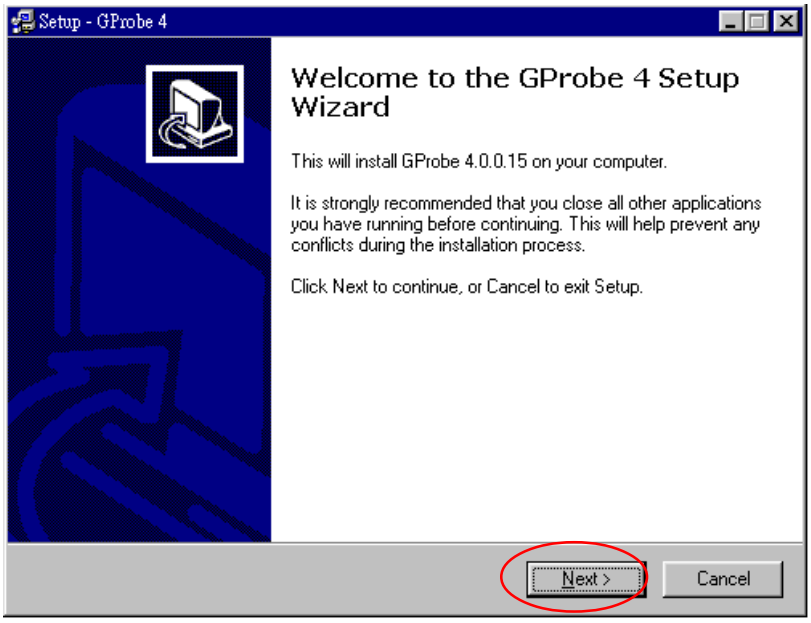
1. Connect P2 of Fixture with printer port of PC by LTP Cable.
2. Connect P1 of Fixture with VP191 Monitor by VGA Cable.
3. Plug Power Adapter to Fixture.
4. Connect Power Cord to VP191 Monitor, and turn on the Power Switch.
5. Connect PC to the additional monitor.

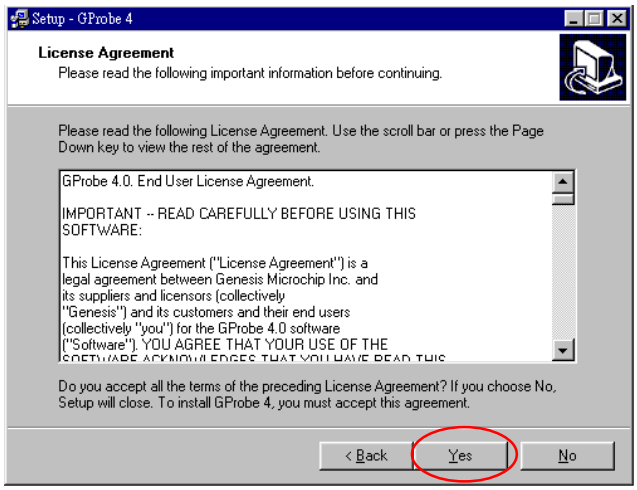


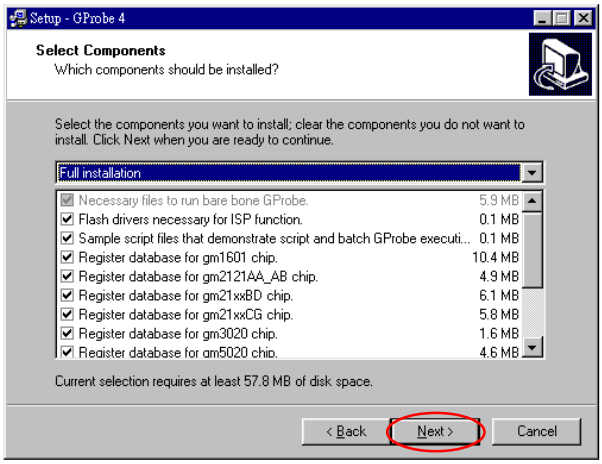
6. Install GProbe Program by selecting and clicking Gprobe icon.
   Press “Yes” or “Next” buttons until the program is finished.

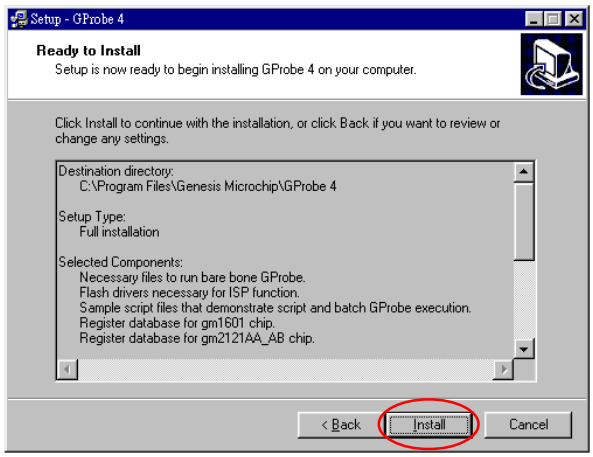


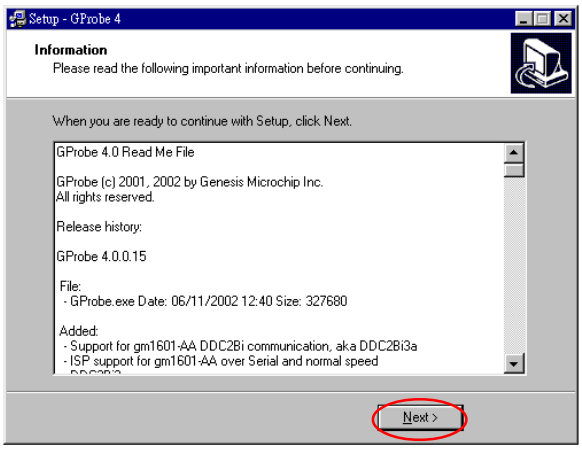


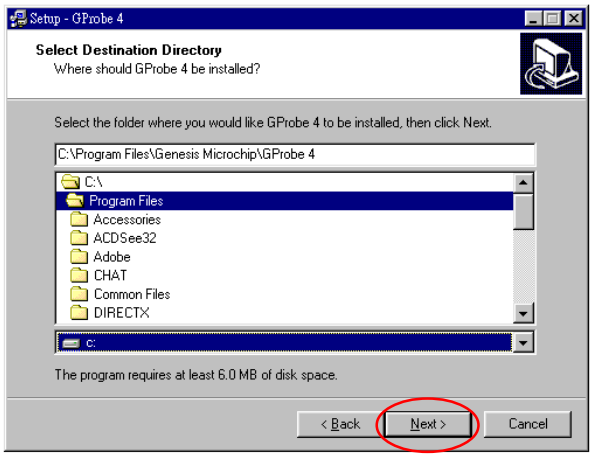

Setup - GProbe 4
Welcome to the GProbe 4 Setup Wizard
This will install GProbe 4.0.0.15 on your computer.
It is strongly recommended that you close all other applications you have running before continuing. This will help prevent any conflicts during the installation process.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

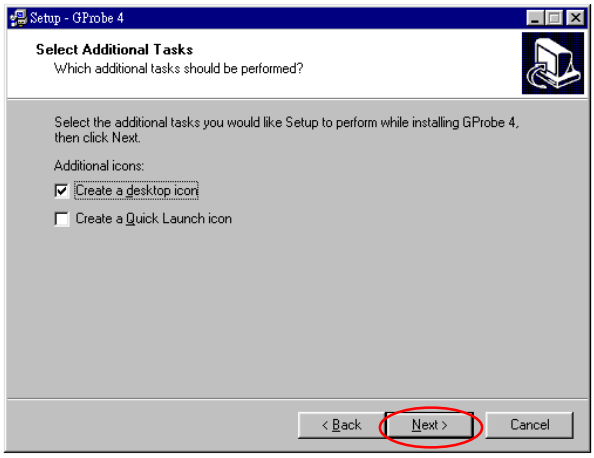

Setup - GProbe 4
License Agreement
Please read the following important information before continuing.
Please read the following License Agreement. Use the scroll bar or press the Page Down key to view the rest of the agreement.
GProbe 4.0. End User License Agreement.
IMPORTANT -- READ CAREFULLY BEFORE USING THIS SOFTWARE:
This License Agreement ("License Agreement") is a legal agreement between Genesis Microchip Inc. and its suppliers and licensors (collectively "Genesis") and its customers and their end users (collectively "you") for the GProbe 4.0 software ("Software"). YOU AGREE THAT YOUR USE OF THE
Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install GProbe 4, you must accept this agreement.
< Back
Yes
No

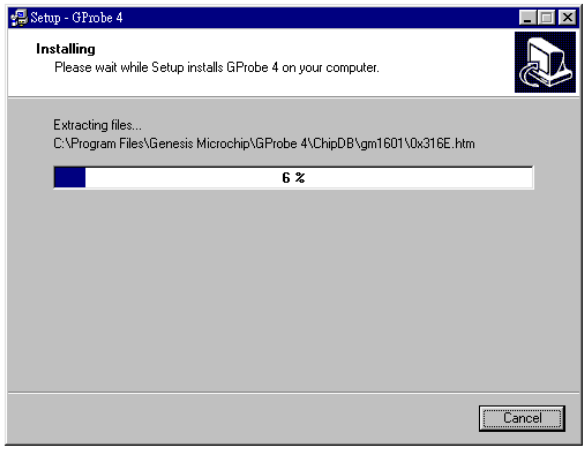

Setup - GProbe 4
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Full installation
Necessary files to run bare bone GProbe. 5.9 MB
Flash drivers necessary for ISP function. 0.1 MB
Sample script files that demonstrate script and batch GProbe executi... 0.1 MB
Register database for gm1601 chip. 10.4 MB
Register database for gm2121AA_AB chip. 4.9 MB
Register database for gm21xxBD chip. 6.1 MB
Register database for gm21xxCG chip. 5.8 MB
Register database for gm3020 chip. 1.6 MB
Register database for gm5020 chip. 4.6 MB
Current selection requires at least 57.8 MB of disk space.
< Back
Next >
Cancel

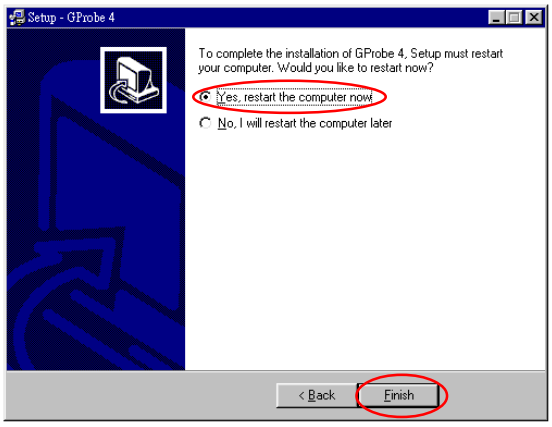

Setup - GProbe 4
Ready to Install
Setup is now ready to begin installing GProbe 4 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination directory:
C:\Program Files\Genesis Microchip\GProbe 4
Setup Type:
Full installation
Selected Components:
Necessary files to run bare bone GProbe.
Flash drivers necessary for ISP function.
Sample script files that demonstrate script and batch GProbe execution.
Register database for gm1601 chip.
Register database for gm2121AA_AB chip.
< Back
Install
Cancel


Setup - GProbe 4
Information
Please read the following important information before continuing.
When you are ready to continue with Setup, click Next.
GProbe 4.0 Read Me File
GProbe (c) 2001, 2002 by Genesis Microchip Inc.
All rights reserved.
Release history:
GProbe 4.0.0.15
File:
- GProbe.exe Date: 06/11/2002 12:40 Size: 327680
Added:
- Support for gm1601-AA DDC2Bi communication, aka DDC2Bi3a
- ISP support for gm1601-AA over Serial and normal speed
Next >


Setup - GProbe 4
Select Destination Directory
Where should GProbe 4 be installed?
Select the folder where you would like GProbe 4 to be installed, then click Next.
C:\Program Files\Genesis Microchip\GProbe 4
C:\
Program Files
Accessories
ACDSee32
Adobe
CHAT
Common Files
DIRECTX
c:
The program requires at least 6.0 MB of disk space.
< Back
Next >
Cancel

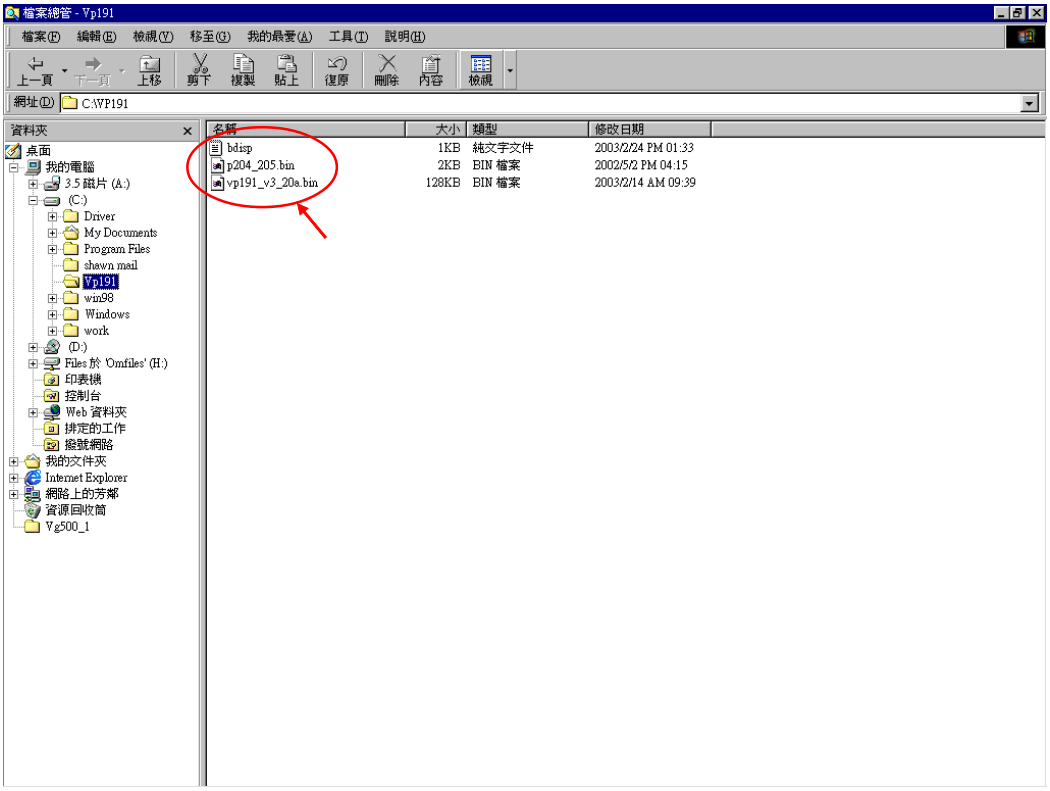

Setup - GProbe 4
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing GProbe 4, then click Next.
Additional icons:
Create a desktop icon
Create a Quick Launch icon
< Back
Next >
Cancel


Setup - GProbe 4
Installing
Please wait while Setup installs GProbe 4 on your computer.
Extracting files...
C:\Program Files\Genesis Microchip\GProbe 4\ChipDB\gm1601\0x316E.htm
6 %
Cancel

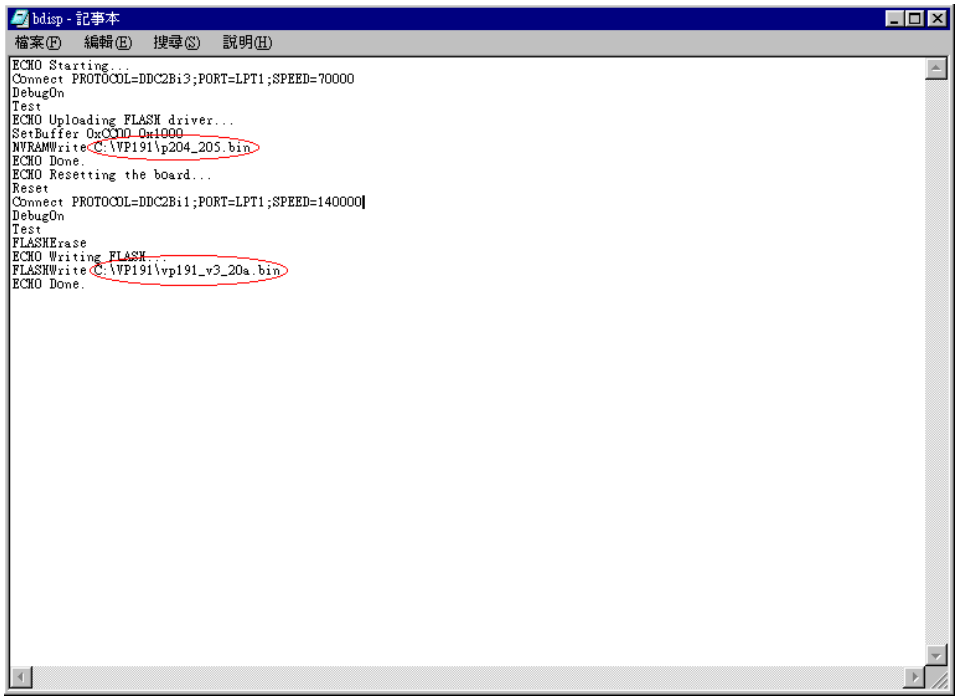

Setup - GProbe 4
To complete the installation of GProbe 4, Setup must restart your computer. Would you like to restart now?
Yes, restart the computer now
No, I will restart the computer later
< Back
Finish

5-2-3 Firmware Upgrade Procedure

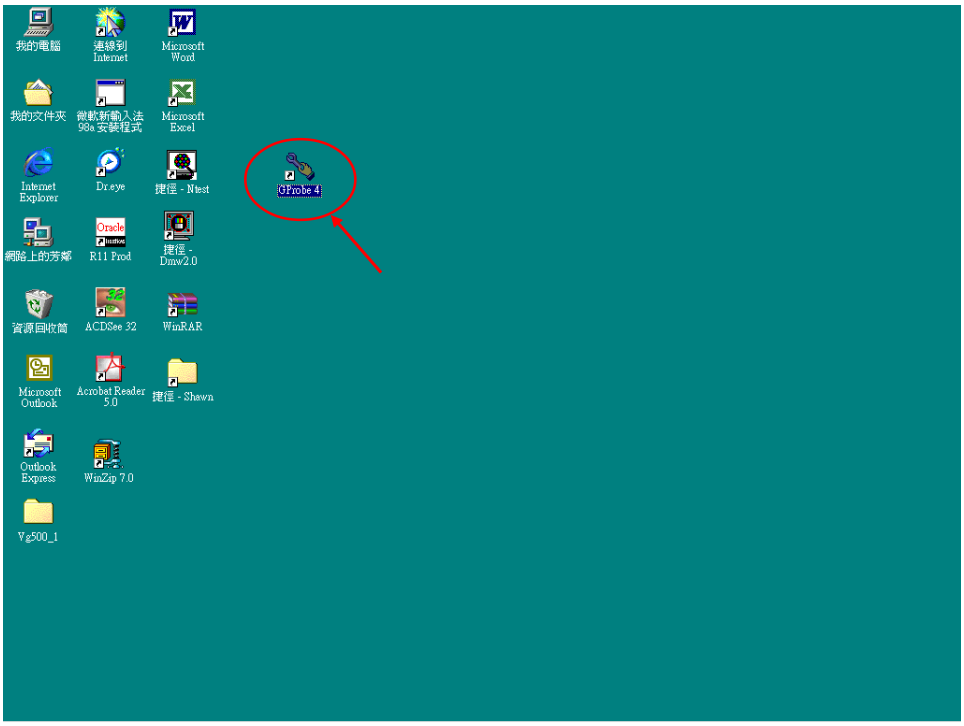
1. Save these three files <bdisp.txt>, <p204_205.bin> and <vp191_v3_20a.bin> in the computer.



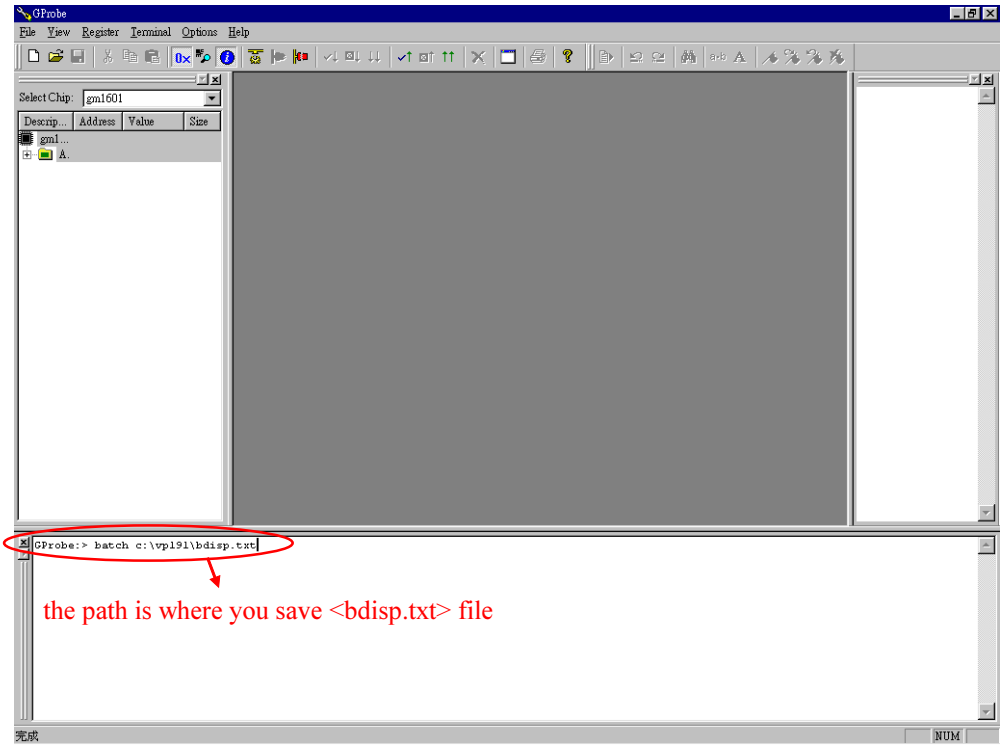
2. Open <bdisp.txt> file.
   Key in the path where you save the driver <p204_205.bin> and firmware <vp191_v3_20a.bin>.



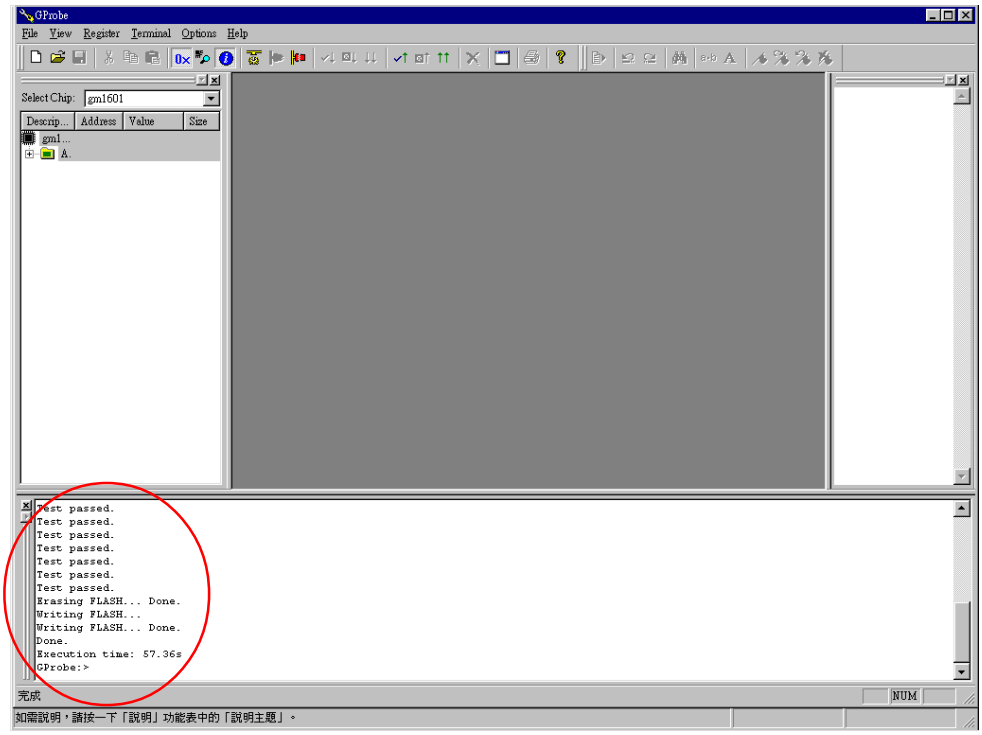
3. Execute Gprobe program.



4. Key in “batch c:\VP191\bdisp.txt” after “GProbe :>”, then press “Enter” key to begin programming automatically.



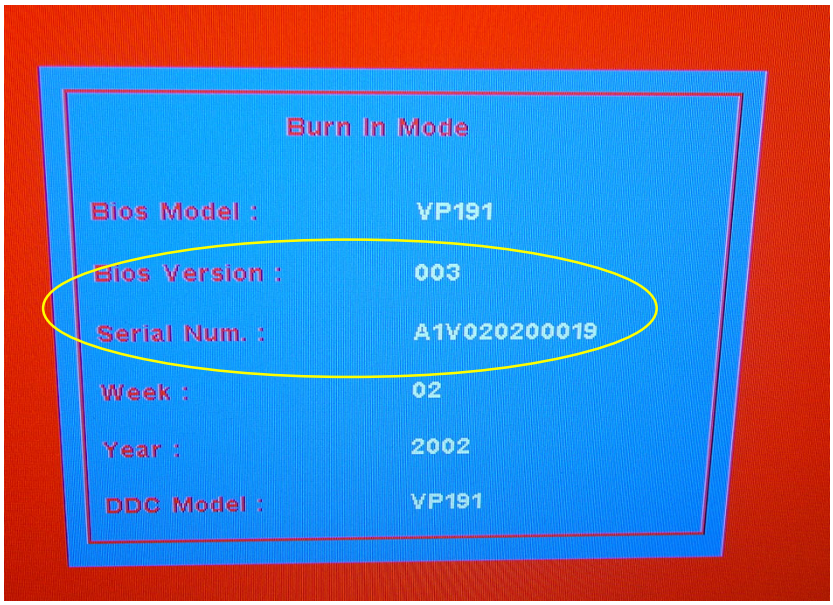
5. The successful picture is as follows :



6. Enter “Burn In Mode” (refer to Chapter 6-3), and you could find that Serial Number disappears.

7. Turn off the power switch of the rear cover of VP191, and turn it on again.
   Then enter “Burn In Mode”, and Serial Number will appear. Check if the version of BIOS is correct.

Power Switch



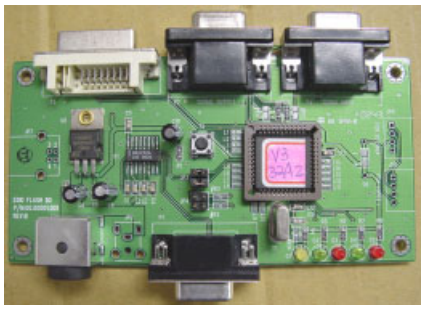
8. Connect the signal, and the monitor will slant to red color. Refer to Chapter 6-3 to do “White Balance”.

9. At last, do “All Mode Reset”.

5-3 DDK Key In Procedure

5-3-1 Equipment Needed

- VP191 Series Monitor
- Fixture(V3) for DDC Key In (JP3 must be closed)
- RS232 Cable (P/N : 42.55907.001) *1
- VGA Cable (P/N : 42.59901.008) *2
- DVI-DVI Cable *1
- PC (Personal Computer)
- Power Adapter (P/N: 47.56001.501) *1 for Fixture
- DDC Key In Program
- One additional monitor for checking the program execution

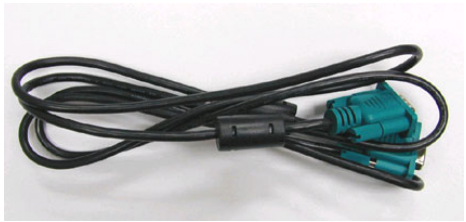


Fixture

VGA Cable (P/N: 42.59901.008)

COM1 : to
RS232 Cable

PC



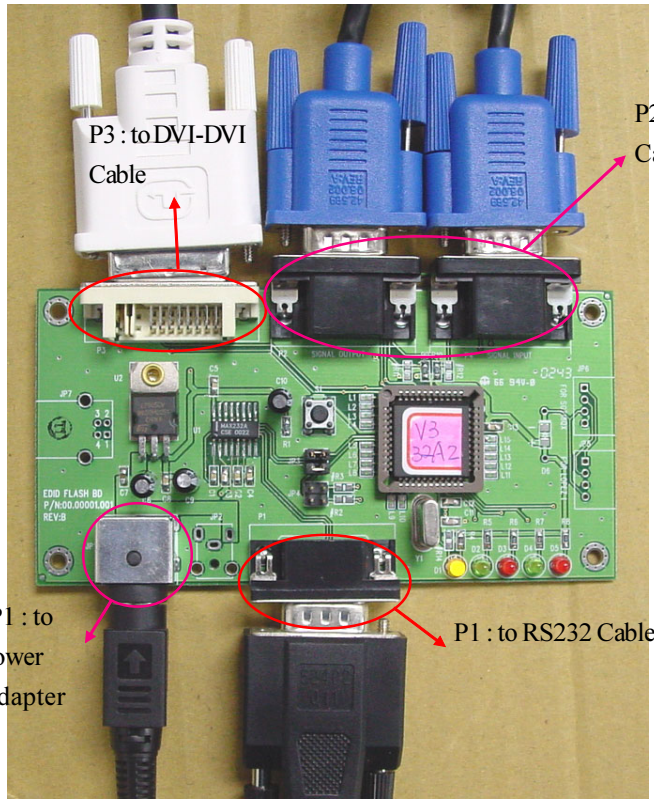
RS-232 Cable (P/N: 42.55907.001)

DVI-DVI Cable

Power Adapter for Fixture
(P/N:47.56001.501)

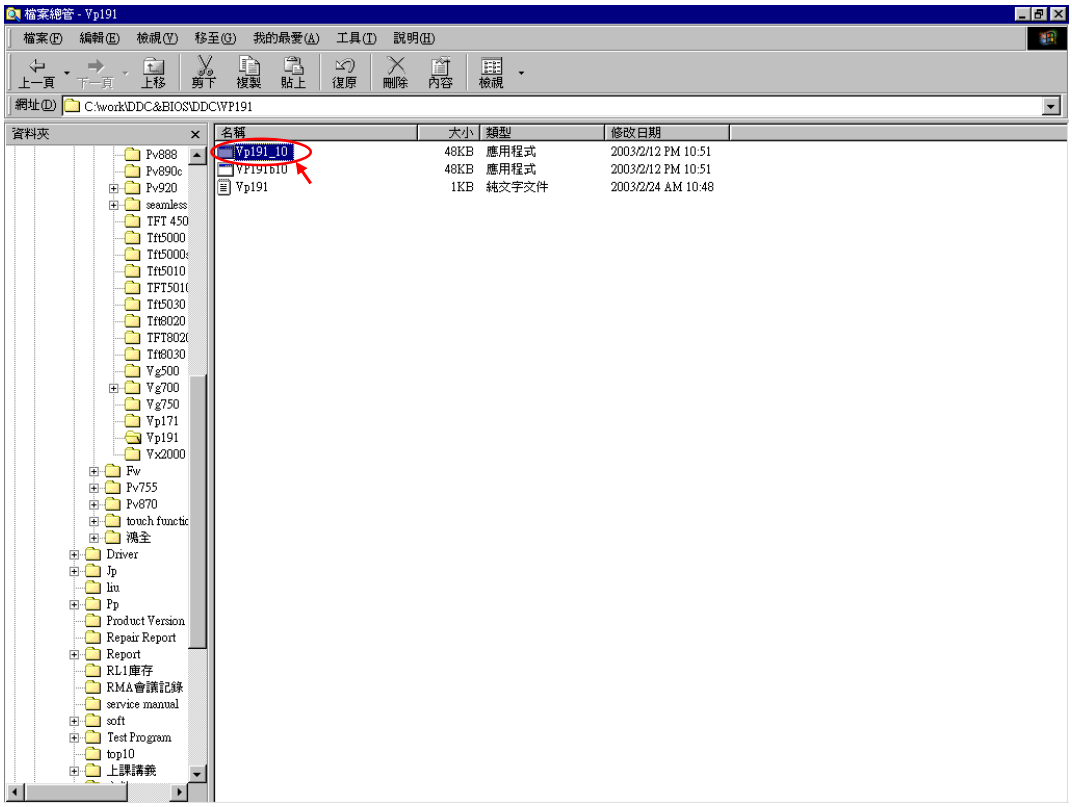
5-3-2 Set-Up Procedure

1. Connect P2 and P4 of Fixture with VGA ports of VP191 by two VGA Cables.
2. Connect P3 of Fixture with DVI port of VP191 by DVI-DVI Cable.
3. Connect P1 of Fixture with COM1 of PC by RS232 Cable.
4. Plug Power Adapter to Fixture.
5. Connect Power Cord to VP191 Monitor, and turn on the Power Switch.
6. Connect PC to the additional monitor.

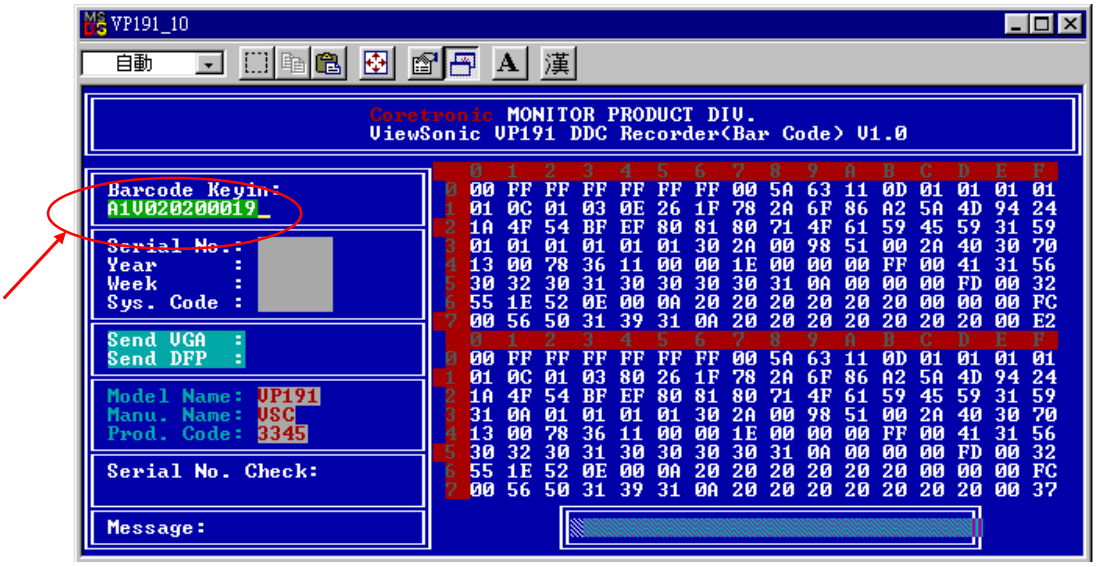


5-3-3 DDC Key In Procedure

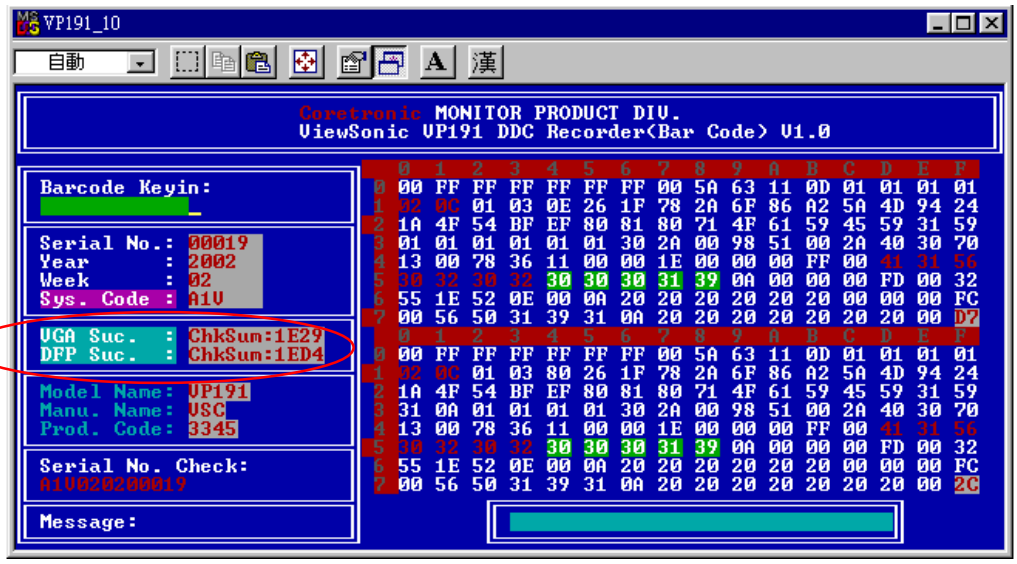
1. Select and execute DDC Key In program.



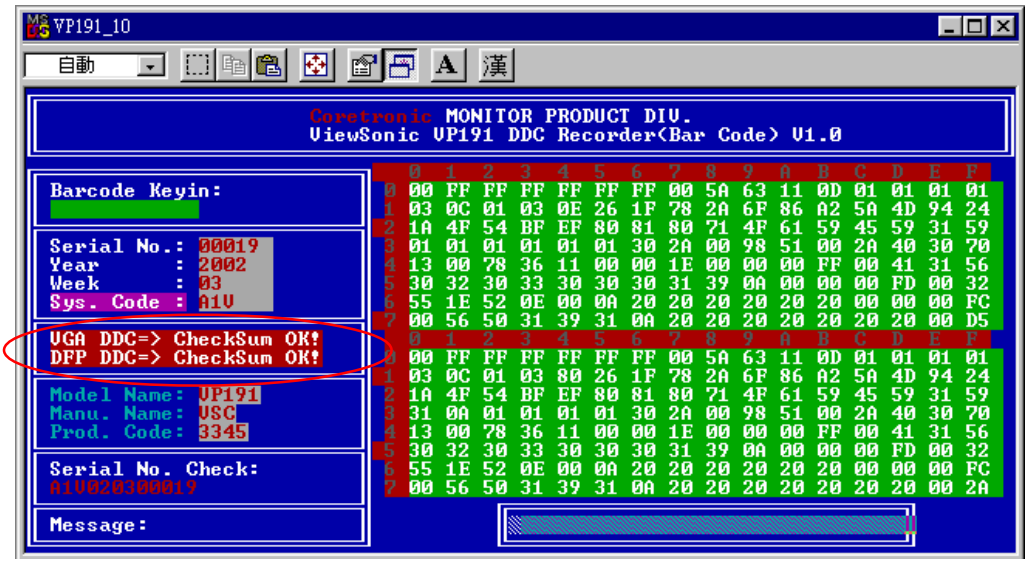
2. Key in the serial number and press “Enter” key.



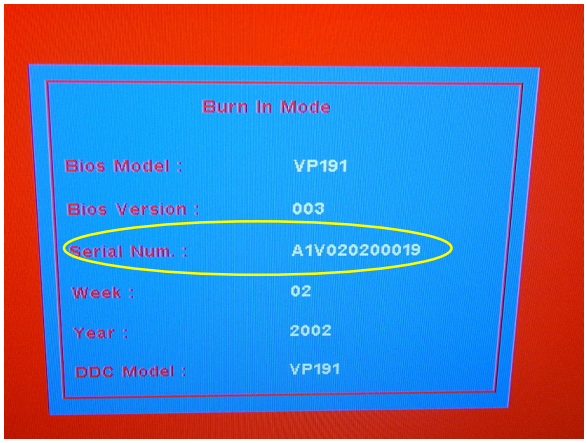
3. The successful picture is as follows :
   (There are checksum values appearing when VGA and DVI success.)

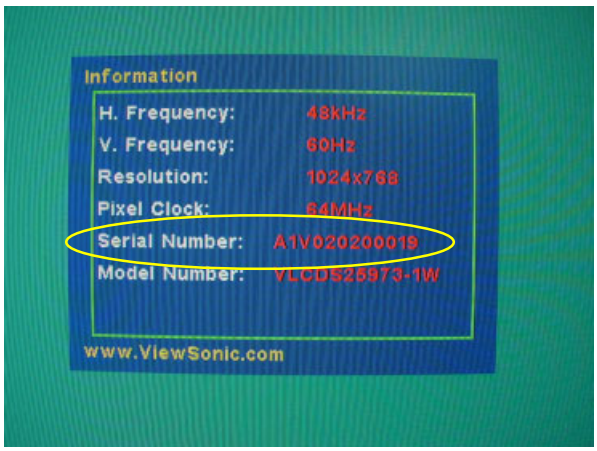


4. Press "~" button ("Shift"+"`") to check DDC CheckSum is correct or not.



5. Enter “Burn In Mode” (refer to Chapter 6-3). Turn off the power switch of the rear cover of VP191, ndaturn it on again. Then enter “Burn In Mode” again and “Information” of OSD Main Menu. Check if the information is correct.





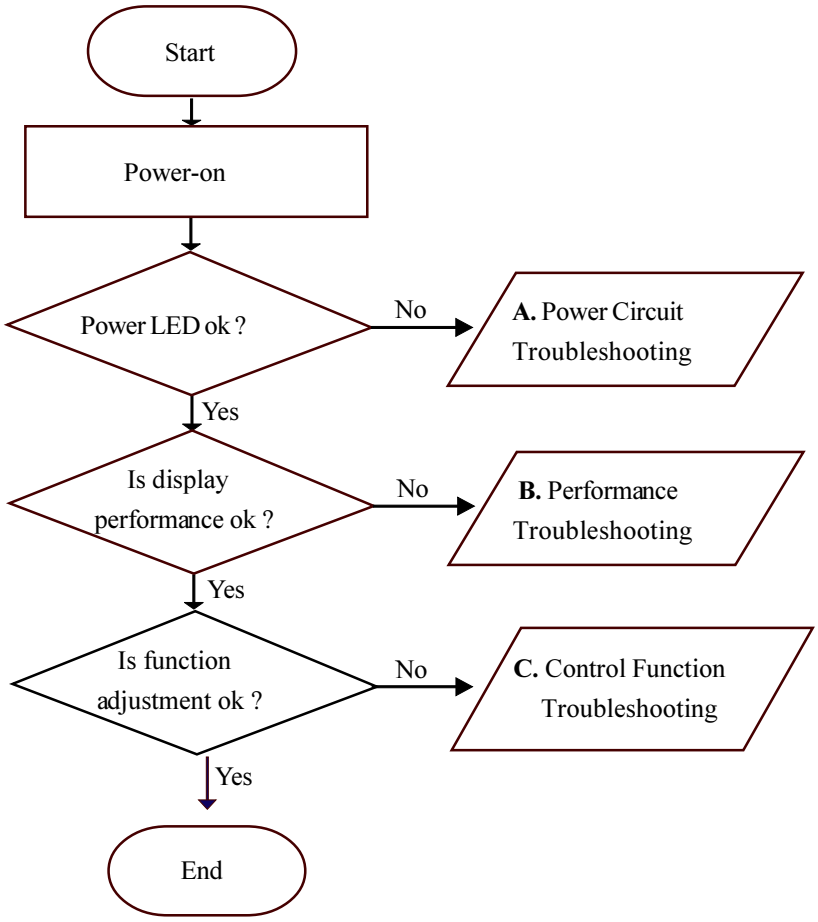
6. Trouble Shooting Flow Chart

This chapter provides technicians and people who have an electronic background a primary description about maintaining the product. Moreover, you can get the appropriate operation to solve some complicated problems of component repairing and professional problems.

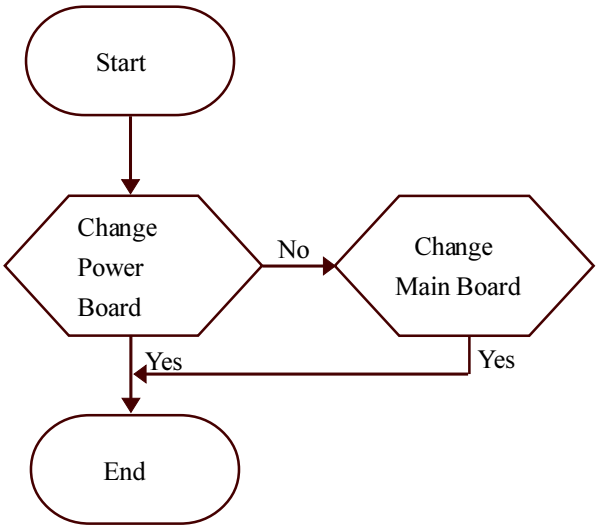
6-1 Equipment Needed

- VP191 Monitor
- Philips Screw Driver #101 and #107
- Electronic Hex Nut M5mm
- PC*(Personal Computer)* with SXGA resolution / Pattern Generator

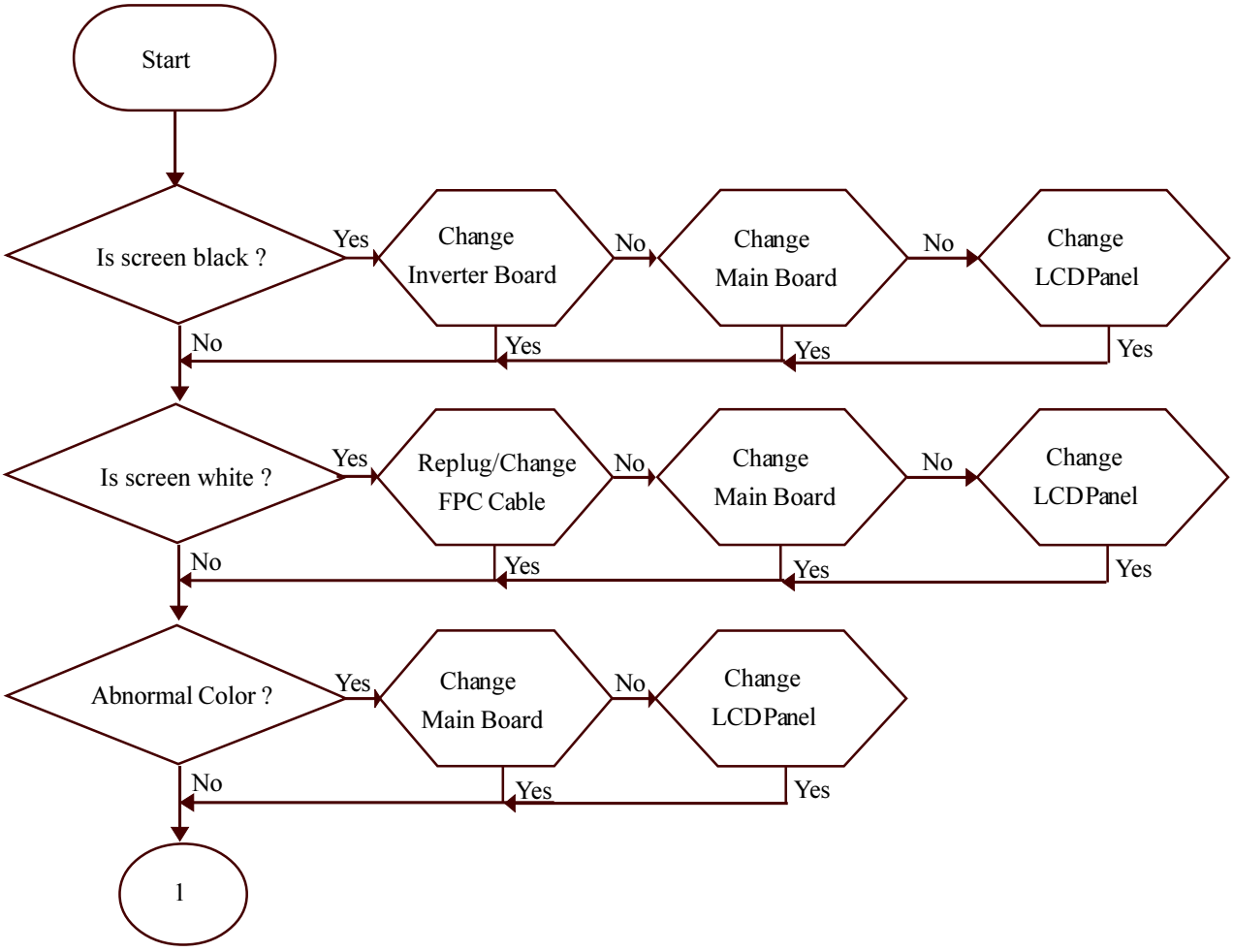
6-2 Main Procedure

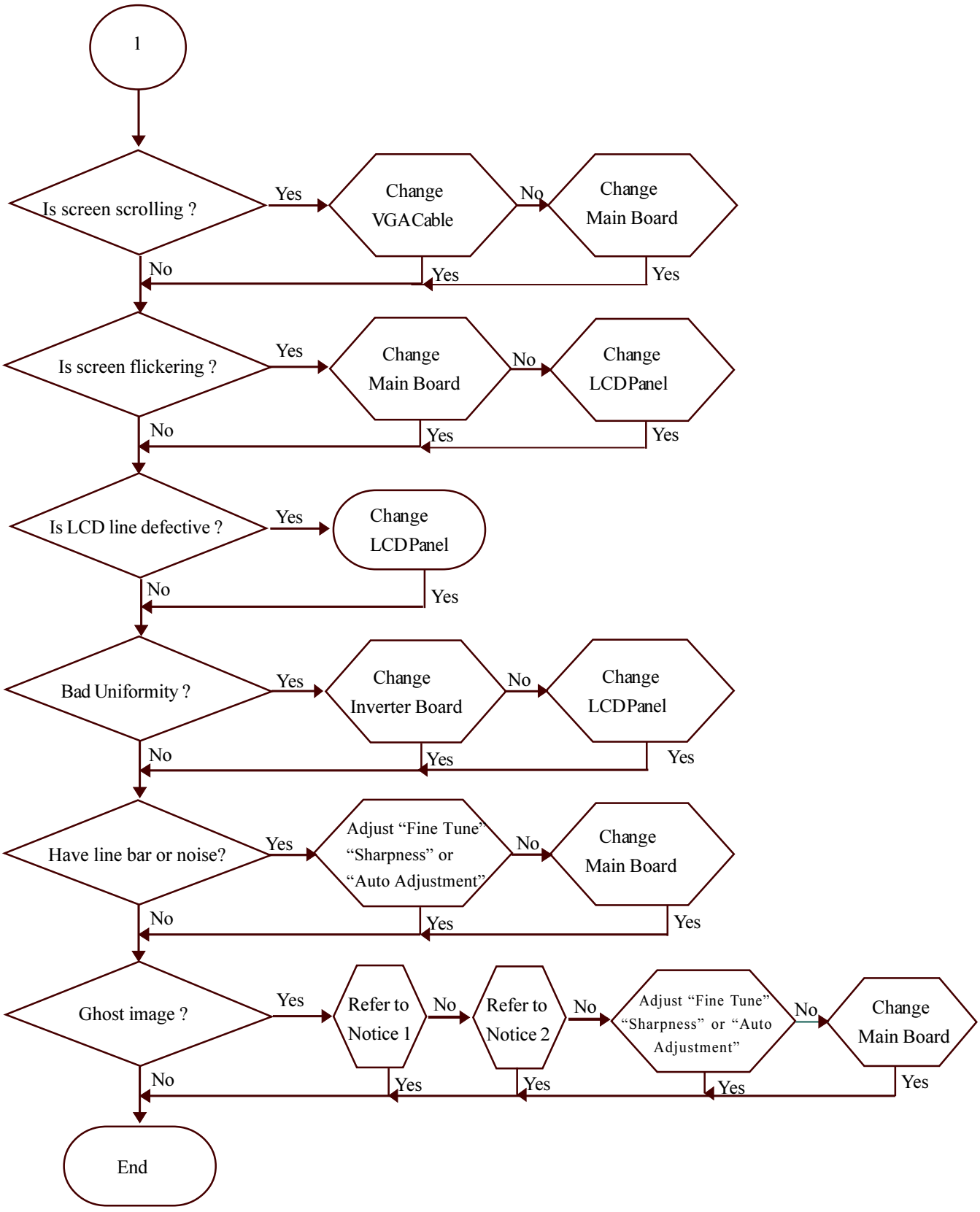


6-2-1 Power Circuit Troubleshooting



6-2-2 Performance Troubleshooting

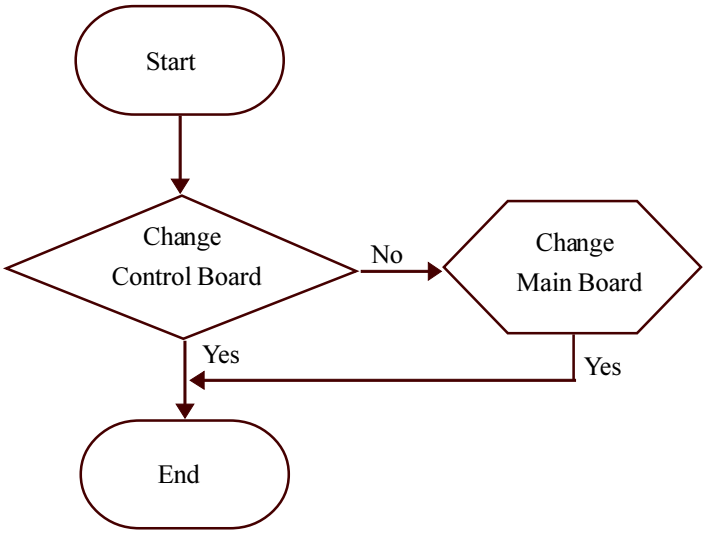




Notice :

1. Make sure VGA cable connect to PC directly and not through a "Data transfer" or "Distribution".....After this action if Ghost image disappear, go to "Yes"; else, go to "No".
2. Check the compatibility on the computer. If it is compatibility problem, feedback the information to ViewSonic, else, go to "No".

6-2-3 Control Function Troubleshooting



7. Recommended Spare Parts List

RECOMMENDED SPARE PARTS LIST (VP191b-1)

ViewSonic Model Number: VLCDS25973
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER		A-AD-0114-0242	44.61103.002	ADAPTER	1
2	**PC Board Assembly:**	PCBA CTRL BD FOR VP171		B-CB-0206-0158	80.61102.001	CONTROL BOARD	1
3		PCBA INVERTER PLCD0819402;EMAX FOR 19" FJUI		B-SB-0221-0601	44.59501.001	INVERTER	1
4		OPEN FRAME IN:100-240V OUT:12V/4.16A"LSE"(N		B-PS-0204-0057	44.61103.003	ADAPTER	1
		PCBA MAIN BD FOR VP191 FUJITSU-11A	Removed 10/15/04	B-MB-0201-0855	80.61201.003	MAIN BOARD	1
5		PCBA MAIN BOARD FOR VP191 FUJ-11AA	Added 10/15/04	B-00000332	80.61201.005	MAIN BOARD	1
6	**Cabinets:**	ASSY HINGE CAP PC+ABS-VS08 VP191b		M-CV-0830-2432	75.61202.002	HINGE CAP	1
7		BASE COVER PC+ABS-VS08 VP191b		M-CV-0830-2430	51.61209.002	BASE COVER	1
8		FRONT ARM PC+ABS-VS08 VP191b		M-MS-0808-7823	51.61207.002	FRONT ARM	1
9		FRONT COVER PC+ABS-VS08A VP191b		C-FP-0301-0375	51.61201.002	FRONT COVER	1
10		HINGE CAP-1 PC+ABS-VS08 VP191b		M-CV-0830-2427	51.61204.002	HINGE CAP-1	1
11		HINGE CAP-2 PC+ABS-VSVS08 VP191b		M-CV-0830-2428	51.61205.002	HINGE CAP-2	1
12		HINGE CAP-3 PC+ABS-VSVS08 VP191b		M-CV-0830-2429	51.61206.002	HINGE CAP-3	1
13		HINGE CAP-4 PC+ABS-VS08 VP191b		M-CV-0830-2431	51.61212.002	HINGE CAP-4	1
14		OVAL CAP PC+ABS-VS08 VP191b		M-CV-0830-2426	51.61203.002	OVAL CAP	1
15		REAR ARM PC+ABS-VS08 VP191b		M-MS-0808-7824	51.61208.002	REAR ARM	1
16		REAR COVER PC+ABS-VS08 VP191b		C-BC-0302-0496	51.61202.002	REAR COVER	1
17	**Cables:**	CABLE DVI-D 1800mm COLOR:CS-VS08		A-VC-0101-0262	42.59902.012	DVI-D CABLE	1
18		CABLE VGA 15P 1800mm 2-CORE COLOR:CS-VS08		A-VC-0101-0261	42.59901.003	VGA CABLE	1
19		W.A. 10/6P UL1007 #24 50mm VP191(INV)		M-WR-0828-0716	42.61202.001	INVERTER WIRE	1
20		W.A. 30P UL20276 #28 250mm VP191		M-WR-0828-0725	42.61201.001	WIRE	1
21		W.A. 3P UL1007 #18 50mm VP191(INLET)		M-WR-0828-0719	42.61205.001	INLET WIRE	1
22		W.A. 4P UL1007 #18 VP191(SWT)		M-WR-0828-0718	42.61204.001	SWITCH WIRE	1
23		W.A. 4P UL1007 #24 250mm VP191(POWER)		M-WR-0828-0717	42.61203.001	POWER WIRE	1
24	**Documentation:**	LABEL BAR CODE 50*25mm VP191		M-LB-0813-0781	35.61203.001	BARCODE LABEL	1
25		LABEL SPEC 120*50mm VP191b		M-LB-0813-0783	35.61201.002	SPEC LABEL	1
26		USER GUIDE+CD(FUJITSU PANEL)		A-UG-0107-0532	36.61202.002	USER GUIDE	1
	Electronic	TFT LCD 19" FUJITSU FLC48SXC8V-11A SXGA	Removed 10/15/04	M-LCD-0826-0227	48.61201.001	LCD PANEL	1
27	**Components:**	TFT LCD 19" FUJITSU FLC48SXC8V-11AA SXGA	Added 10/15/04	E-00000333	48.61201.002	LCD PANEL	1
28	**Miscellaneous:**	MYLAR ADHESIVE t=0.3mm VP191		M-MS-0808-7797	51.61216.001	MYLAR	1
29		EMI Tape (80560) 30*50mm		M-MS-0808-7798	41.53615.001	EMI TAPE	2
30		EMI GASKET UGT-7-0.5-8mm		M-MS-0808-9541	41.54002.002	EMI GASKET	2
31		EMI Tape (80560) 25*30mm		M-MS-0808-7799	41.54612.001	EMI TAPE	6
32		BIRD LOGO AL E015-004 "ViewSonic"		M-MS-0808-7800	35.61202.001	LOGO	1
33	**Packing Material:**	CARTON AB-18 490*265*440 VP191b		P-BX-0601-0801	55.61201.002	CARTON	1
34		CUSHION R EPS VP191		P-FM-0602-0579	56.61201.001	RIGHT CUSHION	1
35		CUSHION L EPS VP191		P-FM-0602-0580	56.61202.001	LEFT CUSHION	1
36	**Plastics:**	CLIP NYLON-VS08 VP191b		PL-CL-0710-0033	51.61213.002	CLIP	3
37		LED LENS PMMA VP191		M-MS-0808-9539	51.61211.001	LED LENS	1
38		NAMEPLATE ELLIPSE VIEWSONIC		M-MS-0808-8299	51.58711.002	NAMEPLATE	1
39		RUBBER PAD 27d*2t VP191		PL-PD-0714-0091	52.61201.001	RUBBER PAD	4
40		SELECT BUTTON PC+ABS-VS08A VP191b		PL-BT-0706-0134	51.61210.002	SELECT BUTTON	1
41		WEAR PLATE (FRONT) VP191		M-MS-0808-7795	51.61214.001	WEAR PLATE	1
42		WEAR PLATE (REAR) VP191		M-MS-0808-7796	51.61215.001	WEAR PLATE	1

ViewSonic Model Number: VLCDS25973-1M
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001		1

ViewSonic Model Number: VLCDS25973-1P
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001		1

ViewSonic Model Number: VLCDS25973-1G
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1.8M±0.1M (CHINA)		A-PC-0106-0187	42.50126.001	POWER CORD	1
2	**Documentation:**	WARRANTY CARD S. CHINESE SECOND VERSION VIEWSONIC		M-MS-0808-8773	36.58307.002	WARRANTY	1
3		WARRANTY STICKER S. CHINESE		M-LB-0813-0737	36.58308.001	WARRANTY	1
4		SHIPPING WARRANTY STICKER S. CHINESE VIEWSONIC		M-LB-0813-0739	36.58309.001	WARRANTY	1
5	**Packing Material:**	PE BAG LDPE 820*850*0.05t VP191/191b(FOR CARTON)		M-MS-0808-8794	51.61219.001	PE BAG	1

ViewSonic Model Number: VLCDS25973-1A
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001		1

ViewSonic Model Number: VLCDS25973-1E
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP-023+IS14 EUR.		A-PC-0106-0271	42.50112.001		1

RECOMMENDED SPARE PARTS LIST (VP191s-1)

ViewSonic Model Number: VLCDS25973
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER		A-AD-0114-0242	44.61103.002	ADAPTER	1
2	**PC Board Assembly:**	OPEN FRAME IN:100-240V OUT:12V/4.16A"LSE"(N		B-PS-0204-0057	44.61103.003	ADAPTER	1
3		PCBA INVERTER PLCD0819402;EMAX FOR 19" FJUI		B-SB-0221-0601	44.59501.001	INVERTER	1
4		PCBA CTRL BD FOR VP171		B-CB-0206-0158	80.61102.001	CONTROL BOARD	1
		PCBA MAIN BD FOR VP191 FUJITSU-11A	Removed 10/15/04	B-MB-0201-0855	80.61201.003	MAIN BOARD	1
5		PCBA MAIN BOARD FOR VP191 FUJ-11AA	Added 10/15/04	B-00000332	80.61201.005	MAIN BOARD	1
6	**Cabinets:**	REAR COVER PC+ABS-VS06A VP191s		C-BC-0302-0509	51.61202.003	REAR COVER	1
7		OVAL CAP PC+ABS-VS06A VP191s		M-CV-0830-2452	51.61203.003	OVAL CAP	1
8		HINGE CAP-1 PC+ABS-VS06 VP191s		M-CV-0830-0297	51.61204.003	HINGE CAP-1	1
9		HINGE CAP-2 PC+ABS-VS06 VP191s		M-CV-0830-0298	51.61205.003	HINGE CAP-2	1
10		HINGE CAP-3 PC+ABS-VS06 VP191s		M-CV-0830-2453	51.61206.003	HINGE CAP-3	1
11		FRONT ARM PC+ABS-VS06 VP191s		M-MS-0808-8751	51.61207.003	FRONT ARM	1
12		REAR ARM PC+ABS-VS06 VP191s		M-MS-0808-8752	51.61208.003	REAR ARM	1
13		BASE COVER PC+ABS-VS06 VP191s		M-CV-0830-2454	51.61209.003	BASE COVER	1
14		HINGE CAP-4 PC+ABS-VS06 VP191s		M-CV-0830-2455	51.61212.003	HINGE CAP-4	1
15		ASSY HINGE CAP CS-VS06 VP191s		M-CV-0830-2457	75.61202.003	HINGE CAP	1
16		FRONT COVER PC+ABS VS-07A VP191s		C-FP-0301-0355	51.61201.003	FRONT COVER	1
17	**Cables:**	CABLE VGA 15P 1800mm 2-CORE COLOR:CS-VS08		A-VC-0101-0261	42.59901.003	VGA CABLE	1
18		CABLE DVI-D 1800mm COLOR:CS-VS08		A-VC-0101-0262	42.59902.012	DVI-D CABLE	1
19		W.A. 30P UL20276 #28 250mm VP191		M-WR-0828-0725	42.61201.001	WIRE	1
20		W.A. 10/6P UL1007 #24 50mm VP191(INV)		M-WR-0828-0716	42.61202.001	INVERTER WIRE	1
21		W.A. 4P UL1007 #24 250mm VP191(POWER)		M-WR-0828-0717	42.61203.001	POWER WIRE	1
22		W.A. 4P UL1007 #18 VP191(SWT)		M-WR-0828-0718	42.61204.001	SWITCH WIRE	1
23		W.A. 3P UL1007 #18 50mm VP191(INLET)		M-WR-0828-0719	42.61205.001	INLET WIRE	1
24	**Documentation:**	USER GUIDE+CD,VP191s(FUJITSU-11 PANEL)		A-CD-VP191S	36.61201.004	USER GUIDE	1
25		LABEL SPEC 120*50mm VP191s		M-LB-0813-0835	35.61201.003	SPEC LABEL	1
26		LABEL BAR CODE 50*25mm VP191		M-LB-0813-0781	35.61203.001	BARCODE LABEL	1
	Electronic	TFT LCD 19" FUJITSU FLC48SXC8V-11A SXGA	Removed 10/15/04	M-LCD-0826-0227	48.61201.001	LCD PANEL	1
27	**Components:**	TFT LCD 19" FUJITSU FLC48SXC8V-11AA SXGA	Added 10/15/04	E-00000333	48.61201.002	LCD PANEL	1
28	**Miscellaneous:**	MYLAR ADHESIVE t=0.3mm VP191		M-MS-0808-7797	51.61216.001	MYLAR	1
29		EMI Tape (80560) 30*50mm		M-MS-0808-7798	41.53615.001	EMI TAPE	2
30		EMI GASKET UGT-7-0.5-8mm		M-MS-0808-9541	41.54002.002	EMI GASKET	2
31		EMI Tape (80560) 25*30mm		M-MS-0808-7799	41.54612.001	EMI TAPE	6
32		BIRD LOGO AL E015-004 "ViewSonic"		M-MS-0808-7800	35.61202.001	LOGO	1
33	**Packing Material:**	CARTON AB-18 490*265*440 VP191s		P-BX-0601-0835	55.61201.003	CARTON	1
34		CUSHION R EPS VP191		P-FM-0602-0579	56.61201.001	RIGHT CUSHION	1
35		CUSHION L EPS VP191		P-FM-0602-0580	56.61202.001	LEFT CUSHION	1
36	**Plastics:**	CLIP NYLON-VS06 VP191s		M-MS-0808-8753	51.61213.003	CLIP	3
37		WEAR PLATE (FRONT) VP191		M-MS-0808-7795	51.61214.001	WEAR PLATE	1
38		WEAR PLATE (REAR) VP191		M-MS-0808-7796	51.61215.001	WEAR PLATE	1
39		SELECT BUTTON PC+ABS-VS07A VP191s		PL-BT-0706-0166	51.61210.003	SELECT BUTTON	1
40		LED LENS PMMA VP191		M-MS-0808-9539	51.61211.001	LED LENS	1
41		RUBBER PAD 27d*2t VP191		PL-PD-0714-0091	52.61201.001	RUBBER PAD	4
42		NAMEPLATE ELLIPSE VIEWSONIC		M-MS-0808-8299	51.58711.002	NAMEPLATE	1

ViewSonic Model Number: VLCDS25973-1M
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001		1

ViewSonic Model Number: VLCDS25973-1P
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001		1

ViewSonic Model Number: VLCDS25973-1G
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1.8M±0.1M (CHINA)		A-PC-0106-0187	42.50126.001	POWER CORD	1
2	**Documentation:**	WARRANTY CARD S. CHINESE SECOND VERSION VIEWSONIC		M-MS-0808-8773	36.58307.002	WARRANTY	1
3		WARRANTY STICKER S. CHINESE		M-LB-0813-0737	36.58308.001	WARRANTY	1
4		SHIPPING WARRANTY STICKER S. CHINESE VIEWSONIC		M-LB-0813-0739	36.58309.001	WARRANTY	1
5	**Packing Material:**	PE BAG LDPE 820*850*0.05t VP191/191b(FOR CARTON)		M-MS-0808-8794	51.61219.001	PE BAG	1

ViewSonic Model Number: VLCDS25973-1A
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP30+IS14		A-PC-0106-0272	42.50115.001		1

ViewSonic Model Number: VLCDS25973-1E
Rev: 1b

Item		Description	ECR/ECN	ViewSonic P/N	Ref. P/N	Location	Q'ty
1	**Accessories:**	CABLE POWER CORD 1830mm SP-023+IS14 EUR.		A-PC-0106-0271	42.50112.001		1

BOM LIST (VP191b-1)

ViewSonic Model Number: VLCDS25973
Rev: 1b

Item	ViewSonic P/N	Part No	Description	Location	Universal Number	Q'ty
1	M-LB-0813-0783	35.61201.002	LABEL SPEC 120*50mm VP191b	SPEC LABEL		1
2	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191	BAR CODE LABEL		1
3	M-MS-0808-8299	51.58711.002	NAMEPLATE ELLIPSE CS-VS08 ViewSonic	NAMEPLATE		1
4	M-CV-0830-2426	51.61203.002	OVAL CAP PC+ABS-VS08A VP191b	OVAL CAP		1
5	M-CV-0830-2431	51.61212.002	HINGE CAP-4 PC+ABS-VS08 VP191b	HINGE CAP-4		1
6	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm	CAUTION LABEL		1
7	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic	BARCODE LABEL		1
8	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 "ViewSonic"	BIRD LOGO		1
9	#N/A	35.61204.002	COSMETIC STRIP ADHESIVE 180*10*0.3(t)mm PC-	COMESTIC STRIP ADHESIVE		1
10	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b	HI-POT LABEL		1
11	#N/A	39.61202.014	DDC RECORDER VP191b FOR FUJ-11AA			1
12	M-MS-0808-7798	41.53615.001	EMI Tape (80560) 30*50mm			2
13	M-MS-0808-9541	41.54002.002	EMI GASKET UGT-7-0.5-8mm			2
14	M-MS-0808-7799	41.54612.001	EMI Tape (80560) 25*30mm			6
15	M-WR-0828-0725	42.61201.001	W.A. 30P UL20276 #28 250mm VP191	PANEL WIRE		1
16	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)	INVERTER WIRE		1
17	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)	POWER WIRE		1
18	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)	SWITICH WIRE		1
19	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)	INLET WIRE		1
20	B-SB-0221-0601	44.59501.001	PCBA INVERTER PLCD0819402;EMAX FOR 19" FJUI	INVERTER		1
	B-SB-0221-0602	44.61202.001	PCBA INVERTER DIVTAL0173-D42;SAMPO FOR 19"			1
21	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191	INVERTER MYLAR		1
22	A-AD-0114-0242	44.61103.002	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER	OPEN FRAME POWER BOARD		1
	B-PS-0204-0057	44.61103.003	OPEN FRAME IN:100-240V OUT:12V/4.16A"LSE"(N			1
23	E-00000333	48.61201.002	TFT LCD 19" FUJITSU FLC48SXC8V-11AA SXGA	PANEL		1
24	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M	TAPE FOR WIRE		0.0033
25	M-MS-0808-9550	61.61201.001	LCD BRKT SECC 1.0t VP191	PANEL BRACKET		1
26	M-MS-0808-9553	61.61202.001	SHIELDING BRKT-MB SECC 1.0t VP191	MB BRACKET		1
27	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191	INVERTER BRACKET		1
28	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	PROTECTION FILM FOR PANEL		1
29	P-BX-0601-1082	51.61218.003	PC 20*12*1.0t mm VP191F			1
30	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F			4
31	#N/A	51.62709.002	MYLAR ADHESIVE 150*45*0.25t VG710			1
32	PL-PD-0714-0063	52.57503.002	RUBBER FOOT 35*10*2t VX2000			1
33	M-MS-0808-9554	52.61202.001	SPACER RUBBER ADHESIVE 20*10*5(h)mm VP191			2
34	C-FP-0301-0375	51.61201.002	FRONT COVER PC+ABS-VS08A VP191b	FRONT COVER		1
35	PL-BT-0706-0134	51.61210.002	SELECT BUTTON PC+ABS-VS08 VP191b			1
36	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191			1
37	C-BC-0302-0496	51.61202.002	REAR COVER PC+ABS-VS08A VP191b	REAR COVER		1
38	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t			1
39	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171	CONTROL BOARD		1
40	#N/A	00.61102.001	BARE PCB L:2 CTRL BD VP171			1
41	#N/A	09.00000.042	DIODE LED 19-22SOVGC/TR8 "EVERLIGHT"			1
42	#N/A	35.00016.001	LABEL BARCODE 6*38mm BLANK			1
43	#N/A	42.61101.001	W.A. FFC 10P 26cm PCB TO CTRL VP171&VP191			1
44	#N/A	43.58423.301	SWITCH PUSH STS-07-A DC15V 20mA "HCH"	SW1, SW2, SW3, SW4, SW5.		5
45	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M			0.000272
46	B-00000332	80.61201.005	PCBA MAIN BOARD FOR VP191 FUJ-11AA	MAIN BOARD		1
47	#N/A	00.61101.C01	BARE PCB L:4 MAIN BD FOR VP171			1
48	#N/A	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	C33,R104,R105,R110,R134,R136,R137,R139,R29,R32,R36,R42,R50,R53,R55,R6,R67,R68,R92		19
49	#N/A	01.10136.501	RES RP 100 5% 1/16W #0603	R100,R101,R116,R117,R122,R123,R19,R20,R33,R38,R43,R59,R98,R99		14
50	#N/A	01.10136.502	RES RP 100 5% 1/16W X4 V8V 8P SMD	RP1,RP10,RP11,RP12,RP13,RP2,RP3,RP4,RP5,RP6,RP7,RP8,RP9		13
51	#N/A	01.10216.501	RES RP 1K 1% 1/16W CHIP #0603	R69		1
52	#N/A	01.10236.501	RES RP 1K 5% 1/16W x4 V8V 8P SMD "PANAS	RP15		1
53	#N/A	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	R124, R5		2
54	#N/A	01.10336.501	RES RP 10K 5% 1/16W x4 V8V 8P SMD "PANASO	RP14		1
55	#N/A	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	C21,R107, R109, R12, R22,R24,R51, R61,R62,R66,R71,R72,R73,R74,R75,R77, R79,R80, R84,R86		20
56	#N/A	01.10436.501	RES RP 100K 5% 1/16W CHIP #0603	R9		1
57	#N/A	01.10439.501	RES RP 100K 5% 1/10W CHIP #0805	R10		1
58	#N/A	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	R7		1

Item	ViewSonic P/N	Part No	Description	Location	Universal Number	Q'ty
59	#N/A	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	R114,R115,R118,R119,R15,R16,R60,R94,R95,R96,R97		11
60	#N/A	01.30116.501	RES RP 330 1% 1/16W CHIP #0603	R1,R4,R8		3
61	#N/A	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	R112,R113,R13,R130,R131,R64,R65		7
62	#N/A	01.33236.501	RES RP 3.3K 5% 1/16W CHIP #0603;"TA-I TECHN	R39,R40,R41		3
63	#N/A	01.47236.501	RES RP 4.7K 5% 1/16W CHIP #0603	R108,R135,R93		3
64	#N/A	01.47239.501	RES RP 4.7K 5% 1/10W CHIP #0805	R3		1
65	#N/A	01.51136.501	RES RP 510 5% 1/16W CHIP #0603;"TA-I TECHNO	R106,R125,R126		3
66	#N/A	01.56236.501	RES RP 5.6K 5% 1/16W CHIP #0603	R83		1
67	#N/A	01.68036.501	RES RP 68 5% 1/16W CHIP #0603	R56		1
68	#N/A	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOL	R34,R35,R37,R44,R45,R46,R47,R48,R49		9
69	#N/A	01.75139.501	RES RP 750 5% 1/10W CHIP #0805	R11		1
70	#N/A	02.10075.402	CAP CE 10u 25V 20% 5*11mm 105 DEGREE C (PZ)	C134,C137,C59,C63		4
71	#N/A	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	C1,C109,C119,C15,C150,C16,C19,C22,C25,C38,C4,C60,C81,C96		14
72	#N/A	02.10273.404	CAP CE 1000u 10V 20% 10*16mm 105℃ (HF) LOW	C30,C44		2
73	#N/A	02.10547.102	CAP CC 100pF 5% 50V NPO #0603	C108,C121,C135,C136,C157,C158		6
74	#N/A	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM	C75,C76,C77,C78,C79,C80		6
75	#N/A	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	C100,C101,C102, C103,C104,C105,C106,C107,C11,C110,C111,C112,C113,C114,C115,C116,C117,C118,C12,C120,C122,C125,C126,C129,C130,C131,C132,C138,C139,C140,C141,C142,C143,C144,C145,C146,C147,C148,C149,C151,C152,C153,C154,C155,C156,C159,C160,C161,C167,C168,C169,C17,C173,C174,C175,C176,C177,C18,C2,C23,C24,C28,C29,C3,C31,C34,C35,C36,C39,C40,C41,C42,C43,C45,C46,C47,C48,C5,C51,C55,C56,C57,C58,C62,C64,C65,C67,C68,C69,C7,C70,C71,C72,C8,C82,C83,C84,C85,C86,C87,C88,C89,C90,C91,C92,C93,C97,C98,C99		109
76	#N/A	02.12174.401	CAP CE 120µF 20% 16V LOW-ESR TYPE RC=405mA	C27		1
77	#N/A	02.22274.402	CAP CE 2200u 16V 20% 12.5*25mm 105° 4Khrs	C10		1
78	#N/A	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	C162, C178,C179,C94,C95		5
79	#N/A	02.47174.404	CAP CE 470u 20% 16V 8*11.5 105 Degree RADIA	C6		1
80	#N/A	02.47437.101	CAP CC 47pF 5% 50V NPO #0603	C163,C164,C165,C166.		4
81	#N/A	02.50347.101	CAP CC 5pF 5% 50V NPO X7R #0603	C123,C124.		2
82	#N/A	03.00008.401	INDCTR BEAD MLB-321611-0120P-N1 "MAG LAYERS	L10,L12		2
83	#N/A	03.00072.401	EMI Bead MLB-201209-0300A-N1	L11,L6,L9		3
84	#N/A	03.15100.301	INDCTR CHOKE 150uH 20% 3A DIP A0060D1 "ARON	L3		1
	#N/A	03.15140.305	INDCTR CHOKE COIL 150uH 10% 3A DIP "MAGLAY"			1
85	#N/A	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2 "	L1, L4,L5,L8.		4
	#N/A	03.22040.302	INDCTR CHOKE COIL 22uH 10% 3A DIP "MAGLAY"			4
86	#N/A	07.14318.001	XTAL 14.318MHz HC-49S HALF SIZE "鴻星"	X1		1
87	#N/A	08.2N390.402	TRNSTR NPN GENERAL MMBT3904LT1 SOT-23 "MO	Q2, Q3,Q4.		3
88	#N/A	08.2N390.603	TRANSTR PNP GENERAL PURPOSE 2N3906 SST3 "RO	Q5		1
89	#N/A	08.AO340.001	MOSFET N-CHANNEL AO3400 SOT-23 "ALPHA & OME	Q1		1
90	#N/A	08.DTC14.401	TRNSTR NPN DTC144W(SMT3) 100nA ;"ROHM"	Q6		1
91	#N/A	09.1N414.802	DIODE RLS4148 / PMLL4148L SMD "PHILIPS"	D3		1
92	#N/A	09.1N582.201	DIODE IN5822 SCHOTTKY RECTIFIER DO201AD	D1		1
93	#N/A	09.DAN20.2K1	DIODE ARRAY DAN202K SMD; "ROHM"	D2,D4,D5.		3
94	#N/A	11.044M2.304	CNNT M 4P 2.5mm RT/LEAD TU3001WNR-4P "TYU"	CN1		1
95	#N/A	11.101F4.701	CNNT 10P FPC 1.0mm RT/SMD FPC1S10B11R03 "ME	JP10		1
96	#N/A	11.102M2.303	CNNT 10P 2.0mm TU2001WNR-10 RT/DIP;"TYU"	JP1		1
97	#N/A	11.155F2.203	CNNT D-SUB 15P RT/LEAD BLUE PC99 VGA	JP5,JP6.		2
98	#N/A	11.259F2.202	CNNT DVI-D 25P RT/LEAD HELM QH11121-DNO	JP4		1
99	#N/A	11.302M2.301	CNNT M 30P 2mm RT/LEAD P220-2*15-R ;"LCU"	JP8		1
100	E-IC-0401-2771	20.24LC2.1A1	IC CMOS 24LC21A EEPROM 128*8 BIT 8SOIC	U14,U15,U7,		3
101	#N/A	20.74LVC.121	IC CMOS 74LVC126A BUS BUFFER GATE "TI""TSSO	U16		1
102	#N/A	20.AD818.301	IC AD8183 Triple 2:1 Multiplexers,380MHZ 24	U8		1
103	#N/A	20.AIC10.842	IC AIC1084:(TO252) 5A ADJUSTABLE REGULATOR	U1,U3		2
104	#N/A	20.AP150.101	IC AP1501 5V SWITCHING REGULATOR SMD 150KHz	U4		1
105	#N/A	20.GM512.001	IC GM5120 Dual-Interface SXGA 208P PQFP "GE	U9	gm5120	1
106	#N/A	20.ICL76.601	IC CMOS VOLTAGE CONVERTER ICL7660S 8SOIC ;	U6		1
107	#N/A	20.THC63.LV1	IC THC63LVDM83A 85MHZ LVDS TSSOP	U12,U13.		2

Item	ViewSonic P/N	Part No	Description	Location	Universal Number	Q'ty
108	#N/A	20.XC620.1P1	IC LDO REG. XC6201P332PR SOT89;"TOREX"	U2		1
109	#N/A	21.24LC1.601	IC EEPROM 24LC16B/SN M 2K*8 BIT IIC BUS 8SO	U10		1
110	#N/A	22.61201.005	PROGRAMED IC VP191 FUJ-11AA			1
111	#N/A	21.Pm39L.V01	IC Pm39LV010 CMOS Flash memory 1Megabit(128	U11		1
112	#N/A	39.61201.005	FW BIOS FOR FUJITSU-11AA			1
113	#N/A	35.00017.001	LABEL BIOS 13*11mm BLANK			1
114	#N/A	35.00018.001	LABEL BARCODE 13*26.5mm BLANK			2
115	#N/A	35.59907.001	LABEL SPEC ASIC 13*11mm BLANK For VIEWSONIC			1
116	#N/A	75.55104.001	ASSY BALL SWITCH TFT5010	JP9		1
117	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK			6
118	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni			1
119	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni			10
120	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK			4
121	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK			3
122	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni			9
123	M-SCW-0824-6829	85.ZA123.080	SCREW WCH/W MECH M3*8 Ni			4
124	M-CV-0830-2429	51.61206.002	HINGE CAP-3 PC+ABS-VS08 VP191b	HINGE CAP-3		1
125	M-MS-0808-7823	51.61207.002	FRONT ARM PC+ABS-VS08 VP191b	FRONT ARM		1
126	M-MS-0808-7824	51.61208.002	REAR ARM PC+ABS-VS08 VP191b	REAR ARM		1
127	PL-CL-0710-0033	51.61213.002	CLIP NYLON-VS08 VP191b	CLIP		3
128	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Serie	PE BAG FOR STAND		2
129	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191	RUBBER PAD		4
130	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn	BASE PLATE		1
131	M-MS-0808-8755	61.61205.001	HINGE VP191	HINGE		1
	#N/A	61.61206.001	HINGE VP191(CFT)			1
132	M-CV-0830-2432	75.61202.002	ASSY HINGE CAP PC+ABS-VS08 VP191b			1
133	M-CV-0830-2427	51.61204.002	HINGE CAP-1 PC+ABS-VS08 VP191b	HINGE CAP-1		1
134	M-CV-0830-2428	51.61205.002	HINGE CAP-2 PC+ABS-VS08 VP191b	HINGE CAP-2		1
135	C-BS-0303-0377	75.61204.002	ASSY BASE COVER CS-VS08 VP191	BASE COVER		1
136	M-CV-0830-2430	51.61209.002	BASE COVER PC+ABS-VS08 VP191b			1
137	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191			1
138	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191			1
139	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK			4
140	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK			1
141	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK			4
142	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni			4
143	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni			4
144	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK			3
145	M-LB-0813-1017	35.59906.001	LABEL 210*65mm BLANK FOR PALLET			0.0625
146	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14			1
147	#N/A	51.00069.001	PACKING STRAP 12MM*2000M*0.6MM			0.023
148	#N/A	51.00070.001	PE STRETCH FILM 500MM*1500M*0.02MM			0.0003
149	#N/A	51.00080.001	3 INCH TRANSPARENT ADHESIVE TAPE (600M)			0.0021
150	#N/A	51.59912.001	ViewSonic security tape 50t*100000mm			0.01
151	#N/A	55.55103.001	CORNER BOARD 40*40*5*1050mm			0.0625
152	#N/A	55.57202.001	CORNER BOARD 40*40*5*960mm			0.0625
153	#N/A	55.61205.001	CORNER BOARD 40*40*5*2040mm VP191			0.125
154	#N/A	55.61204.002	COVER PALLET AB FLUTE 114*102*0.7cm FOR VP1			0.03125
155	#N/A	58.61201.001	WOOD PALLET 1140*1020*115 for VP191			0.03125
156	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm	UPC LABEL		1
157	A-UG-0107-0532	36.61202.002	USER GUIDE+CD(FUJITSU PANEL)	USER GUIDE		1
158	A-VC-0101-0261	42.59901.003	CABLE VGA 15P 1800mm 2-CORE COLOR:CS-VS08	VGA CABLE		1
159	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1800mm COLOR:CS-VS08	DVI-D CALBE		1
160	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE	PE BAG		1
161	P-BX-0601-0801	55.61201.002	CARTON AB-18 490*265*440 VP191b	CARTON		1
162	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191	CUSHION		1
163	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191	CUSHION		1

BOM LIST (VP191s-1)

ViewSonic Model Number: VLCDS25973

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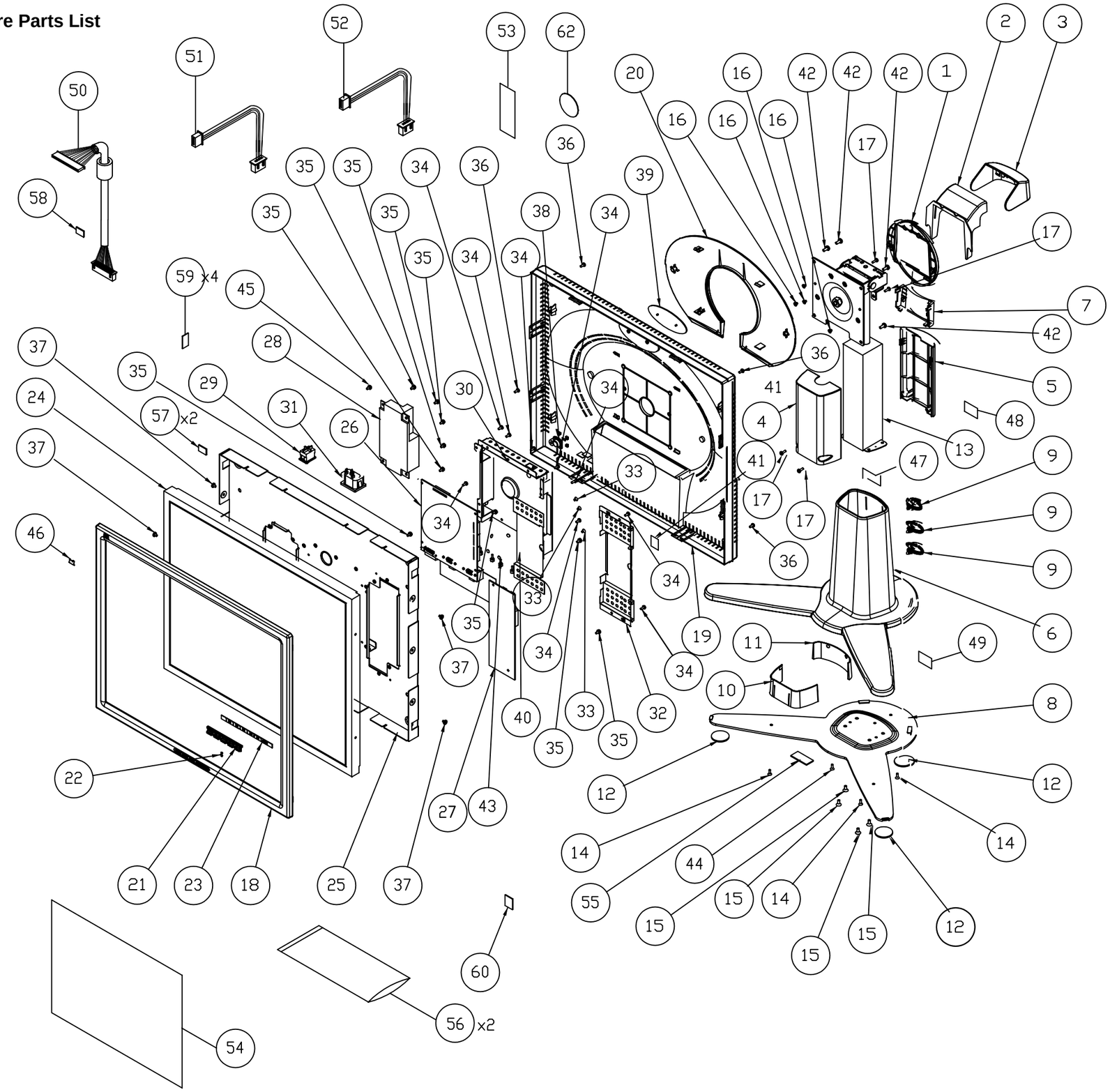
Item	ViewSonic P/N	Part No	Description	Location	Universal Number	Q'ty
1	M-LB-0813-0835	35.61201.003	LABEL SPEC 120*50mm VP191s	SPEC LABEL		1
2	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191	BAR CODE LABEL		1
3	M-MS-0808-8116	51.58711.001	NAMEPLATE ELLIPSE ViewSonic	NAMEPLATE		1
4	M-CV-0830-2452	51.61203.003	OVAL CAP PC+ABS-VS06A VP191s	OVAL CAP		1
5	M-CV-0830-2455	51.61212.003	HINGE CAP-4 PC+ABS-VS06 VP191s	HINGE CAP-4		1
6	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm	CAUTION LABEL		1
7	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic	BARCODE LABEL		1
8	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 "ViewSonic"	BIRD LOGO		1
9	M-00000174	35.61204.003	COSMETIC STRIP ADHESIVE 180*10*0.3(t)mm PC-	COMESTIC STRIP ADHESIVE		1
10	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b	HI-POT LABEL		1
11	#N/A	39.61202.015	DDC RECORDER VP191s FOR FUJ-11AA PANEL			1
12	M-MS-0808-7798	41.53615.001	EMI Tape (80560) 30*50mm			2
13	M-MS-0808-9541	41.54002.002	EMI GASKET UGT-7-0.5-8mm			2
14	M-MS-0808-7799	41.54612.001	EMI Tape (80560) 25*30mm			6
15	M-WR-0828-0725	42.61201.001	W.A. 30P UL20276 #28 250mm VP191	PANEL WIRE		1
16	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)	INVERTER WIRE		1
17	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)	POWER WIRE		1
18	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)	SWITICH WIRE		1
19	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)	INLET WIRE		1
20	B-SB-0221-0601	44.59501.001	PCBA INVERTER PLCD0819402;EMAX FOR 19" FJUI	INVERTER		1
	B-SB-0221-0602	44.61202.001	PCBA INVERTER DIVTAL0173-D42;SAMPO FOR 19"			1
21	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191	INVERTER MYLAR		1
22	A-AD-0114-0242	44.61103.002	OPEN FRAME IN:100-240V OUT:12V/4.16A "TIGER	OPEN FRAME POWER BOARD		1
	B-PS-0204-0057	44.61103.003	OPEN FRAME IN:100-240V OUT:12V/4.16A"LSE"(N			1
23	E-00000333	48.61201.002	TFT LCD 19" FUJITSU FLC48SXC8V-11AA SXGA	PANEL		1
24	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M	TAPE FOR WIRE		0.0033
25	M-MS-0808-9550	61.61201.001	LCD BRKT SECC 1.0t VP191	PANEL BRACKET		1
26	M-MS-0808-9553	61.61202.001	SHIELDING BRKT-MB SECC 1.0t VP191	MB BRACKET		1
27	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191	INVERTER BRACKET		1
28	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	PROTECTION FILM FOR PANEL		1
29	P-BX-0601-1082	51.61218.003	PC 20*12*1.0t mm VP191F			1
30	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F			4
31	#N/A	51.62709.002	MYLAR ADHESIVE 150*45*0.25t VG710			1
32	PL-PD-0714-0063	52.57503.002	RUBBER FOOT 35*10*2t VX2000			1
33	M-MS-0808-9554	52.61202.001	SPACER RUBBER ADHESIVE 20*10*5(h)mm VP191			2
34	C-FP-0301-0355	51.61201.003	FRONT COVER PC+ABS VS-07A VP191s	FRONT COVER		1
35	PL-BT-0706-0166	51.61210.003	SELECT BUTTON PC+ABS-VS07A VP191s			1
36	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191			1
37	C-BC-0302-0509	51.61202.003	REAR COVER PC+ABS-VS06A VP191s	REAR COVER		1
38	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t			1
39	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171	CONTROL BOARD		1
40	#N/A	00.61102.001	BARE PCB L:2 CTRL BD VP171			1
41	#N/A	09.00000.042	DIODE LED 19-22SOVGC/TR8 "EVERLIGHT"			1
42	#N/A	35.00016.001	LABEL BARCODE 6*38mm BLANK			1
43	#N/A	42.61101.001	W.A. FFC 10P 26cm PCB TO CTRL VP171&VP191			1
44	#N/A	43.58423.301	SWITCH PUSH STS-07-A DC15V 20mA "HCH"	SW1, SW2, SW3, SW4, SW5.		5
45	M-MS-0808-8797	51.00014.002	FILAMENT TAPE 3M NO.8915 25mm*55M			0.000272
46	B-00000332	80.61201.005	PCBA MAIN BOARD FOR VP191 FUJ-11AA	MAIN BOARD		1
47	#N/A	00.61101.C01	BARE PCB L:4 MAIN BD FOR VP171			1
48	#N/A	01.00036.502	RES RP 0 5% 1/16W CHIP #0603;"TA-I TECHNOLO	C33,R104,R105,R110,R134,R136,R137,R139,R29,R32,R36,R42,R50,R53,R55,R6,R67,R68,R92		19
49	#N/A	01.10136.501	RES RP 100 5% 1/16W #0603	R100,R101,R116,R117,R122,R123,R19,R20,R33,R38,R43,R59,R98,R99		14
50	#N/A	01.10136.502	RES RP 100 5% 1/16W X4 V8V 8P SMD	RP1,RP10,RP11,RP12,RP13,RP2,RP3,RP4,RP5,RP6,RP7,RP8,RP9		13
51	#N/A	01.10216.501	RES RP 1K 1% 1/16W CHIP #0603	R69		1
52	#N/A	01.10236.501	RES RP 1K 5% 1/16W x4 V8V 8P SMD "PANAS	RP15		1
53	#N/A	01.10236.502	RES RP 1K 5% 1/16W #0603;"TA-I TECHNOLOGY"	R124, R5		2
54	#N/A	01.10336.501	RES RP 10K 5% 1/16W x4 V8V 8P SMD "PANASO	RP14		1
55	#N/A	01.10336.502	RES RP 10K 5% 1/16W CHIP #0603;"TA-I TECHNO	C21,R107, R109, R12, R22,R24,R51, R61,R62,R66,R71,R72,R73,R74,R75,R77, R79,R80, R84,R86		20
56	#N/A	01.10436.501	RES RP 100K 5% 1/16W CHIP #0603	R9		1
57	#N/A	01.10439.501	RES RP 100K 5% 1/10W CHIP #0805	R10		1
58	#N/A	01.20116.501	RES RP 200 1% 1/16W CHIP #0603	R7		1

Item	ViewSonic P/N	Part No	Description	Location	Universal Number	Q'ty
59	#N/A	01.22236.501	RES RP 2.2K 5% 1/16W CHIP #0603	R114,R115,R118,R119,R15,R16,R60,R94,R95,R96,R97		11
60	#N/A	01.30116.501	RES RP 330 1% 1/16W CHIP #0603	R1,R4,R8		3
61	#N/A	01.33036.502	RES RP 33 5% 1/16W CHIP #0603;"TA-I TECHNOL	R112,R113,R13,R130,R131,R64,R65		7
62	#N/A	01.33236.501	RES RP 3.3K 5% 1/16W CHIP #0603;"TA-I TECHN	R39,R40,R41		3
63	#N/A	01.47236.501	RES RP 4.7K 5% 1/16W CHIP #0603	R108,R135,R93		3
64	#N/A	01.47239.501	RES RP 4.7K 5% 1/10W CHIP #0805	R3		1
65	#N/A	01.51136.501	RES RP 510 5% 1/16W CHIP #0603;"TA-I TECHNO	R106,R125,R126		3
66	#N/A	01.56236.501	RES RP 5.6K 5% 1/16W CHIP #0603	R83		1
67	#N/A	01.68036.501	RES RP 68 5% 1/16W CHIP #0603	R56		1
68	#N/A	01.75016.501	RES RP 75 1% 1/16W CHIP #0603;"TA-I TECHNOL	R34,R35,R37,R44,R45,R46,R47,R48,R49		9
69	#N/A	01.75139.501	RES RP 750 5% 1/10W CHIP #0805	R11		1
70	#N/A	02.10075.402	CAP CE 10u 25V 20% 5*11mm 105 DEGREE C (PZ)	C134,C137,C59,C63		4
71	#N/A	02.10174.404	CAP CE 100u 20% 16V 6.3*11 RADIAL 105 degre	C1,C109,C119,C15,C150,C16,C19,C22,C25,C38,C4,C60,C81,C96		14
72	#N/A	02.10273.404	CAP CE 1000u 10V 20% 10*16mm 105℃ (HF) LOW	C30,C44		2
73	#N/A	02.10547.102	CAP CC 100pF 5% 50V NPO #0603	C108,C121,C135,C136,C157,C158		6
74	#N/A	02.10747.101	CAP CC 0.01uF 10% 50V X7R #0603;"YCTC""TEAM	C75,C76,C77,C78,C79,C80		6
75	#N/A	02.10887.101	CAP CC 0.1uF +80%-20% 50V Y5V #0603; "YCTC"	C100,C101,C102, C103, C104,C105,C106,C107,C11,C110,C111,C112,C113,C114,C115,C116,C117,C118,C12,C120,C122,C125,C126,C129,C130,C131,C132,C138,C139,C140,C141,C142,C143,C144,C145,C146, C147,C148,C149,C151,C152,C153,C154,C155,C156,C159,C160,C161,C167,C168,C169,C17, C173,C174,C175,C176,C177,C18,C2,C23,C24,C28,C29,C3,C31,C34,C35,C36,C39,C40,C41,C42,C43,C45,C46,C47,C48,C5,C51,C55,C56,C57,C58,C62,C64, C65,C67,C68,C69,C7,C70,C71, C72,C8,C82,C83,C84,C85,C86, C87,C88,C89,C90,C91,C92,C93,C97,C98,C99		109
76	#N/A	02.12174.401	CAP CE 120µF 20% 16V LOW-ESR TYPE RC=405mA	C27		1
77	#N/A	02.22274.402	CAP CE 2200u 16V 20% 12.5*25mm 105° 4Khrs	C10		1
78	#N/A	02.22447.101	CAP CC 22pF 5% 50V NPO #0603; "YCTC","TEAM	C162, C178,C179,C94,C95		5
79	#N/A	02.47174.404	CAP CE 470u 20% 16V 8*11.5 105 Degree RADIA	C6		1
80	#N/A	02.47437.101	CAP CC 47pF 5% 50V NPO #0603	C163,C164,C165,C166.		4
81	#N/A	02.50347.101	CAP CC 5pF 5% 50V NPO X7R #0603	C123,C124.		2
82	#N/A	03.00008.401	INDCTR BEAD MLB-321611-0120P-N1 "MAG LAYERS	L10,L12		2
83	#N/A	03.00072.401	EMI Bead MLB-201209-0300A-N1	L11,L6,L9		3
84	#N/A	03.15100.301	INDCTR CHOKE 150uH 20% 3A DIP A0060D1 "ARON	L3		1
	#N/A	03.15140.305	INDCTR CHOKE COIL 150uH 10% 3A DIP "MAGLAY"			1
85	#N/A	03.22040.301	INDCTR CHOKE COIL 22u 10% 3A DIP A00601C2 "	L1, L4,L5,L8.		4
	#N/A	03.22040.302	INDCTR CHOKE COIL 22uH 10% 3A DIP "MAGLAY"			4
86	#N/A	07.14318.001	XTAL 14.318MHz HC-49S HALF SIZE "鴻星"	X1		1
87	#N/A	08.2N390.402	TRNSTR NPN GENERAL MMBT3904LT1 SOT-23 "MO	Q2, Q3,Q4.		3
88	#N/A	08.2N390.603	TRANSTR PNP GENERAL PURPOSE 2N3906 SST3 "RO	Q5		1
89	#N/A	08.AO340.001	MOSFET N-CHANNEL AO3400 SOT-23 "ALPHA & OME	Q1		1
90	#N/A	08.DTC14.401	TRNSTR NPN DTC144W(SMT3) 100nA ;"ROHM"	Q6		1
91	#N/A	09.1N414.802	DIODE RLS4148 / PMLL4148L SMD "PHILIPS"	D3		1
92	#N/A	09.1N582.201	DIODE IN5822 SCHOTTKY RECTIFIER DO201AD	D1		1
93	#N/A	09.DAN20.2K1	DIODE ARRAY DAN202K SMD; "ROHM"	D2,D4,D5.		3
94	#N/A	11.044M2.304	CNNT M 4P 2.5mm RT/LEAD TU3001WNR-4P "TYU"	CN1		1
95	#N/A	11.101F4.701	CNNT 10P FPC 1.0mm RT/SMD FPC1S10B11R03 "ME	JP10		1
96	#N/A	11.102M2.303	CNNT 10P 2.0mm TU2001WNR-10 RT/DIP;"TYU"	JP1		1
97	#N/A	11.155F2.203	CNNT D-SUB 15P RT/LEAD BLUE PC99 VGA	JP5,JP6.		2
98	#N/A	11.259F2.202	CNNT DVI-D 25P RT/LEAD HELM QH11121-DNO	JP4		1
99	#N/A	11.302M2.301	CNNT M 30P 2mm RT/LEAD P220-2*15-R ;"LCU"	JP8		1
100	E-IC-0401-2771	20.24LC2.1A1	IC CMOS 24LC21A EEPROM 128*8 BIT 8SOIC	U14,U15,U7,		3
101	#N/A	20.74LVC.121	IC CMOS 74LVC126A BUS BUFFER GATE "TI""TSSO	U16		1
102	#N/A	20.AD818.301	IC AD8183 Triple 2:1 Multiplexers,380MHZ 24	U8		1
103	#N/A	20.AIC10.842	IC AIC1084:(TO252) 5A ADJUSTABLE REGULATOR	U1,U3		2
104	#N/A	20.AP150.101	IC AP1501 5V SWITCHING REGULATOR SMD 150KHz	U4		1
105	#N/A	20.GM512.001	IC GM5120 Dual-Interface SXGA 208P PQFP "GE	U9	gm5120	1
106	#N/A	20.ICL76.601	IC CMOS VOLTAGE CONVERTER ICL7660S 8SOIC ;	U6		1
107	#N/A	20.THC63.LV1	IC THC63LVDM83A 85MHZ LVDS TSSOP	U12,U13.		2
108	#N/A	20.XC620.1P1	IC LDO REG. XC6201P332PR SOT89;"TOREX"	U2		1

Item	ViewSonic P/N	Part No	Description	Location	Universal Number	Q'ty
109	#N/A	21.24LC1.601	IC EEPROM 24LC16B/SN M 2K*8 BIT IIC BUS 8SO	U10		1
110	#N/A	22.61201.005	PROGRAMED IC VP191 FUJ-11AA			1
111	#N/A	21.Pm39L.V01	IC Pm39LV010 CMOS Flash memory 1Megabit(128	U11		1
112	#N/A	39.61201.005	FW BIOS FOR FUJITSU-11AA			1
113	#N/A	35.00017.001	LABEL BIOS 13*11mm BLANK			1
114	#N/A	35.00018.001	LABEL BARCODE 13*26.5mm BLANK			2
115	#N/A	35.59907.001	LABEL SPEC ASIC 13*11mm BLANK For VIEWSONIC			1
116	#N/A	75.55104.001	ASSY BALL SWITCH TFT5010	JP9		1
117	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK			6
118	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni			1
119	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni			10
120	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK			4
121	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK			3
122	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni			9
123	M-SCW-0824-6829	85.ZA123.080	SCREW WCH/W MECH M3*8 Ni			4
124	M-CV-0830-2453	51.61206.003	HINGE CAP-3 PC+ABS-VS06 VP191s	HINGE CAP-3		1
125	M-MS-0808-8751	51.61207.003	FRONT ARM PC+ABS-VS06 VP191s	FRONT ARM		1
126	M-MS-0808-8752	51.61208.003	REAR ARM PC+ABS-VS06 VP191s	REAR ARM		1
127	M-MS-0808-8753	51.61213.003	CLIP NYLON-VS06 VP191s	CLIP		3
128	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Serie	PE BAG FOR STAND		2
129	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191	RUBBER PAD		4
130	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn	BASE PLATE		1
131	M-MS-0808-8755	61.61205.001	HINGE VP191	HINGE		1
	#N/A	61.61206.001	HINGE VP191(CFT)			1
132	M-CV-0830-2457	75.61202.003	ASSY HINGE CAP CS-VS06 VP191s			1
133	M-CV-0830-0297	51.61204.003	HINGE CAP-1 PC+ABS-VS06 VP191s	HINGE CAP-1		1
134	M-CV-0830-0298	51.61205.003	HINGE CAP-2 PC+ABS-VS06 VP191s	HINGE CAP-2		1
135	M-CV-0830-2456	75.61204.003	ASSY BASE COVER PC+ABS-VS06 VP191s	BASE COVER		1
136	M-CV-0830-2454	51.61209.003	BASE COVER PC+ABS-VS06 VP191s			1
137	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191			1
138	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191			1
139	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK			4
140	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK			1
141	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK			4
142	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni			4
143	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni			4
144	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK			3
145	M-LB-0813-1017	35.59906.001	LABEL 210*65mm BLANK FOR PALLET			0.0625
146	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14			1
147	#N/A	51.00069.001	PACKING STRAP 12MM*2000M*0.6MM			0.023
148	#N/A	51.00070.001	PE STRETCH FILM 500MM*1500M*0.02MM			0.0003
149	#N/A	51.00080.001	3 INCH TRANSPARENT ADHESIVE TAPE (600M)			0.0021
150	#N/A	51.59912.001	ViewSonic security tape 50t*100000mm			0.01
151	#N/A	55.55103.001	CORNER BOARD 40*40*5*1050mm			0.0625
152	#N/A	55.57202.001	CORNER BOARD 40*40*5*960mm			0.0625
153	#N/A	55.61205.001	CORNER BOARD 40*40*5*2040mm VP191			0.125
154	#N/A	55.61204.002	COVER PALLET AB FLUTE 114*102*0.7cm FOR VP1			0.03125
155	#N/A	58.61201.001	WOOD PALLET 1140*1020*115 for VP191			0.03125
156	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm	UPC LABEL		1
157	A-CD-VP191S	36.61201.004	USER GUIDE+CD,VP191s(FUJITSU-11 PANEL)	USER GUIDE		1
158	A-VC-0101-0261	42.59901.003	CABLE VGA 15P 1800mm 2-CORE COLOR:CS-VS08	VGA CABLE		1
159	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1800mm COLOR:CS-VS08	DVI-D CALBE		1
160	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE	PE BAG		1
161	P-BX-0601-0835	55.61201.003	CARTON AB-18 490*265*440 VP191s	CARTON		1
162	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191	CUSHION		1
163	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191	CUSHION		1

8. Exploded Diagram And Spare Parts List

8-1 Exploded Diagram



EXPLODED PARTS LIST (VP191b-1)

ViewSonic Model Number: VLCDS25973

Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	M-CV-0830-2427	51.61204.002	HINGE CAP-1 PC+ABS-VS06 VP191b	1
2	M-CV-0830-2428	51.61205.002	HINGE CAP-2 PC+ABS-VS06 VP191b	1
3	M-CV-0830-2429	51.61206.002	HINGE CAP-3 PC+ABS-VS06 VP191b	1
4	M-MS-0808-7823	51.61207.002	FRONT ARM PC+ABS-VS06 VP191b	1
5	M-MS-0808-7824	51.61208.002	REAR ARM PC+ABS-VS06 VP191b	1
6	M-CV-0830-2430	51.61209.002	BASE COVER PC+ABS-VS06 VP191b	1
7	M-CV-0830-2431	51.61212.002	HINGE CAP-4 PC+ABS-VS06 VP191b	1
8	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn	1
9	PL-CL-0710-0033	51.61213.002	CLIP NYLON-VS06 VP191b	3
10	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191	1
11	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191	1
12	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191	4
13	M-MS-0808-8755	61.61205.001	HINGE VP191	1
14	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK	3
15	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK	4
16	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK	4
17	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	4
18	C-FP-0301-0375	51.61201.002	FRONT COVER PC+ABS VS-07A VP191b	1
19	C-BC-0302-0496	51.61202.002	REAR COVER PC+ABS-VS06A VP191b	1
20	M-CV-0830-2426	51.61203.002	OVAL CAP PC+ABS-VS06A VP191b	1
21	PL-BT-0706-0134	51.61210.002	SELECT BUTTON PC+ABS-VS07A VP191b	1
22	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191	1
23	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171	1
24	E-00000333	48.61201.002	TFT LCD 19" FUJITSU FLC48SXC8V-11AA SXGA	1
25	M-MS-0808-9550	61.61201.001	LCD BRKT SECC 1.0t VP191	1
26	B-00000332	80.61201.005	PCBA MAIN BOARD FOR VP191 FUJ-11AA	1
27	B-SB-0221-0601	44.59501.001	PCBA INVERTER PLCD0819402;EMAX FOR 19" FJUI	1
28	B-PS-0204-0057	44.61103.003	OPEN FRAME IN:100-240V OUT:12V/4.16A""LSE""(NOISE REDUCTION)	1
29	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)	1
30	M-MS-0808-9553	61.61202.001	SHIELDING BRKT-MB SECC 1.0t VP191	1
31	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)	1
32	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191	1
33	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK	3
34	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni	9
35	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni	10
36	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK	4
37	M-SCW-0824-6829	85.ZA123.080	SCREW WCH/W MECH M3*8 Ni	4
38	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t	1
39	M-MS-0808-8299	51.58711.002	NAMEPLATE ELLIPSE ViewSonic (VP191b)	1
40	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191	1
41	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm	1
42	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni	4
43	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	6
44	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK	1
45	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni	1
46	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 ""ViewSonic""	1
47	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191	1
48	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic	1
49	M-LB-0813-0783	35.61201.002	LABEL SPEC 120*50mm VP191b	1
50	M-WR-0828-0725	42.61201.001	W.A. 30P UL20276 #28 250mm VP191	1
51	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)	1
52	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)	1
53	M-MS-0808-8239	51.00014.001	FILAMENT TAPE 3M NO.897 25mm*45M	0.0033
54	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	1
55	PL-PD-0714-0064	52.00003.001	RUBBEBR FOOT 25*10*1.2t	1
56	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 berie	2
57	M-MS-0808-9554	52.61202.001	SPACER RUBBER ADHESIVE 20*10*5(h)mm VP191	2
58	PL-PD-0714-0063	52.57503.002	RUBBER FOOT 35*10*2t VX2000	1
59	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F	4
60	P-BX-0601-1082	51.61218.003	PC 20*12*1.0t mm VP191F	1
61	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b	1

EXPLODED PARTS LIST (VP191s-1)

ViewSonic Model Number: VLCDS25973

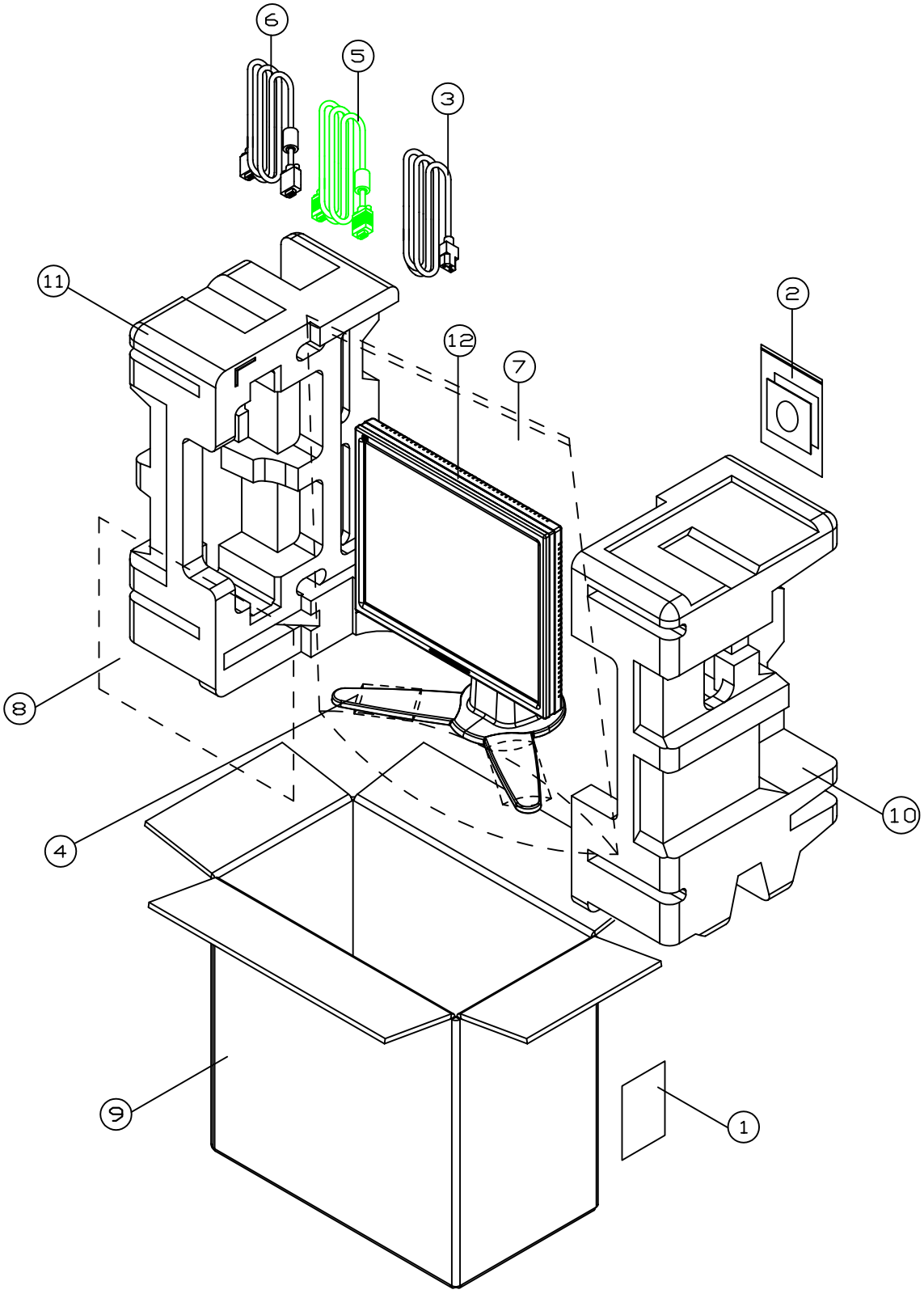
Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	M-CV-0830-0297	51.61204.003	HINGE CAP-1 PC+ABS-VS06 VP191s	1
2	M-CV-0830-0298	51.61205.003	HINGE CAP-2 PC+ABS-VS06 VP191s	1
3	M-CV-0830-2453	51.61206.003	HINGE CAP-3 PC+ABS-VS06 VP191s	1
4	M-MS-0808-8751	51.61207.003	FRONT ARM PC+ABS-VS06 VP191s	1
5	M-MS-0808-8752	51.61208.003	REAR ARM PC+ABS-VS06 VP191s	1
6	M-CV-0830-2454	51.61209.003	BASE COVER PC+ABS-VS06 VP191s	1
7	M-CV-0830-2455	51.61212.003	HINGE CAP-4 PC+ABS-VS06 VP191s	1
8	M-MS-0808-8772	61.61204.001	BASE PLATE SPHC 3.0t Zn	1
9	M-MS-0808-8753	51.61213.003	CLIP NYLON-VS06 VP191s	3
10	M-MS-0808-7795	51.61214.001	WEAR PLATE (FRONT) VP191	1
11	M-MS-0808-7796	51.61215.001	WEAR PLATE (REAR) VP191	1
12	PL-PD-0714-0091	52.61201.001	RUBBER PAD 27d*2t VP191	4
13	M-MS-0808-8755	61.61205.001	HINGE VP191	1
14	M-SCW-0824-0845	85.YA323.080	SCREW FLAT TAP M3*8 BLACK	3
15	M-SCW-0824-0869	85.4A624.080	SCREW FLAT MECH M4*8 BLACK NYLOK	4
16	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK	4
17	M-SCW-0824-6755	85.UA123.080	DOUBLE THREADS SCREW PAN TAP M3*8 Ni	4
18	C-FP-0301-0355	51.61201.003	FRONT COVER PC+ABS VS-07A VP191s	1
19	C-BC-0302-0509	51.61202.003	REAR COVER PC+ABS-VS06A VP191s	1
20	M-CV-0830-2452	51.61203.003	OVAL CAP PC+ABS-VS06A VP191s	1
21	PL-BT-0706-0166	51.61210.003	SELECT BUTTON PC+ABS-VS07A VP191s	1
22	M-MS-0808-9539	51.61211.001	LED LENS PMMA VP191	1
23	B-CB-0206-0158	80.61102.001	PCBA CTRL BD FOR VP171	1
24	E-00000333	48.61201.002	TFT LCD 19" FUJITSU FLC48SXC8V-11AA SXGA	1
25	M-MS-0808-9550	61.61201.001	LCD BRKT SECC 1.0t VP191	1
26	B-00000332	80.61201.005	PCBA MAIN BOARD FOR VP191 FUJ-11AA	1
27	B-SB-0221-0601	44.59501.001	PCBA INVERTER PLCD0819402;EMAX FOR 19" FJUI	1
28	B-PS-0204-0057	44.61103.003	OPEN FRAME IN:100-240V OUT:12V/4.16A""LSE""(NOISE REDUCTION)	1
29	M-WR-0828-0718	42.61204.001	W.A. 4P UL1007 #18 VP191(SWT)	1
30	M-MS-0808-9553	61.61202.001	SHIELDING BRKT-MB SECC 1.0t VP191	1
31	M-WR-0828-0719	42.61205.001	W.A. 3P UL1007 #18 50mm VP191(INLET)	1
32	M-MS-0808-9559	61.61203.001	SHIELDING PLATE-INV Tineplate 0.3t VP191	1
33	M-SCW-0824-6753	85.4A323.040	SCREW FLATE MECH M3*4 BLACK	3
34	M-SCW-0824-6961	85.1H123.040	SCREW PAN MECH W/SPG M3*4 Ni	9
35	M-SCW-0824-0651	85.1F123.060	SCREW PAN MECH W/SF M3*6 Ni	10
36	M-SCW-0824-6826	85.1F323.080	SCREW PAN MECH W/SF M3*8 BLACK	4
37	M-SCW-0824-6829	85.ZA123.080	SCREW WCH/W MECH M3*8 Ni	4
38	M-BK-0805-0023	61.00042.001	LOCK BRKT+CAP SECC 0.8t	1
39	M-MS-0808-8116	51.58711.001	NAMEPLATE ELLIPSE ViewSonic (VP191s)	1
40	M-MS-0808-7797	51.61216.001	MYLAR ADHESIVE t=0.3mm VP191	1
41	M-LB-0813-1016	35.00010.002	LABEL CAUTION HIGH VOLTAGE 25.4*19mm	1
42	M-SCW-0824-0847	85.5A124.080	SCREW BINDING MECH M4*8 Ni	4
43	M-MS-0808-6287	85.005AG.075	SCREW HEX I/O #4-40*H5*L7.5 Ni NYLOK	6
44	M-SCW-0824-0868	85.4A623.080	SCREW FLAT MECH M3*8 BLACK NYLOK	1
45	M-SCW-0824-6827	85.1C124.060	SCREW PAN MECH W/T M4*6 Ni	1
46	M-MS-0808-7800	35.61202.001	BIRD LOGO AL E015-004 ""ViewSonic""	1
47	M-LB-0813-0781	35.61203.001	LABEL BAR CODE 50*25mm VP191	1
48	M-LB-0813-0736	35.58304.001	LABEL BARCODE 40*14 ViewSonic	1
49	M-LB-0813-0835	35.61201.003	LABEL SPEC 120*50mm VP191s	1
50	M-WR-0828-0725	42.61201.001	W.A. 30P UL20276 #28 250mm VP191	1
51	M-WR-0828-0716	42.61202.001	W.A. 10/6P UL1007 #24 50mm VP191(INV)	1
52	M-WR-0828-0717	42.61203.001	W.A. 4P UL1007 #24 250mm VP191(POWER)	1
53	M-MS-0808-8239	51.00014.001	FILAMENT TAPE 3M NO.897 25mm*45M	0.0033
54	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	1
55	PL-PD-0714-0064	52.00003.001	RUBBEBR FOOT 25*10*1.2t	1
56	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191 Serie	2
57	M-MS-0808-9554	52.61202.001	SPACER RUBBER ADHESIVE 20*10*5(h)mm VP191	2
58	PL-PD-0714-0063	52.57503.002	RUBBER FOOT 35*10*2t VX2000	1
59	P-BX-0601-1083	51.61218.002	PC 30*12*0.65t mm VP191F	4
60	P-BX-0601-1082	51.61218.003	PC 20*12*1.0t mm VP191F	1
61	M-LB-0830-0726	35.61205.001	HI-POT TEST LABLE F 10mm VP191/191b	1

8-2 Packing for shipping

This section provides the package and exploded overview, replaceable parts list. You can place an order for correct parts in the recommended parts list.

- **Package Overview**



• Package Parts List

PACKING PARTS LIST (VP191b-1)

ViewSonic Model Number: VLCDS25973

Rev: 1b

Item	Viewsonic P/N	Ref. P/N	Description	Q'ty
1	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm	1
2	A-UG-0107-0532	36.61202.002	USER GUIDE+CD VP191b	1
3	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14	1
4	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191	1
5	A-VC-0101-0261	42.59901.003	CABLE VGA 15P 1800mm 2*25mm CORE(VP191b/191s)	1
6	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1.8M 2-CORE MOLEX(VP191b/191s)	1
7	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE	1
8	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	1
9	P-BX-0601-0801	55.61201.002	CARTON AB-18 490*265*440 VP191b	1
10	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191	1
11	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191	1
12	B-SB-0221-0631	DC.61201.001	D.C. SAMSUNG-VS09 VP191b	1

PACKING PARTS LIST (VP191s-1)

ViewSonic Model Number: VLCDS25973

Rev: 1b

Item	ViewSonic P/N	Ref. P/N	Description	Q'ty
1	M-LB-0813-0706	35.58203.001	LABEL CARTON 76*76mm	1
2	A-CD-VP191S	36.61201.004	USER GUIDE+CD VP191s	1
3	A-PC-0106-0272	42.50115.001	CABLE POWER CORD 1830mm SP30+IS14	1
4	M-MS-0808-9911	51.61220.001	PE BAG LDPE 150*65*0.04t mm VP171/191	1
5	A-VC-0101-0261	42.59901.003	CABLE VGA 15P 1800mm 2*25mm CORE(VP191b/191s)	1
6	A-VC-0101-0262	42.59902.012	CABLE DVI-D 1.8M 2-CORE MOLEX(VP191b/191s)	1
7	P-00000334	51.00081.009	PE BAG LDPE 570*850*0.1t W/HOLE	1
8	M-MS-0808-9552	51.61217.001	MYLAR PROTECT FILM 400*315 0.1t	1
9	P-BX-0601-0835	55.61201.003	CARTON AB-18 490*265*440 VP191s	1
10	P-FM-0602-0579	56.61201.001	CUSHION R EPS VP191	1
11	P-FM-0602-0580	56.61202.001	CUSHION L EPS VP191	1
12	B-SB-0221-0631	DC.61201.002	D.C. SAMSUNG-VS09 VP191s	1

8-3 Packing Procedure

1. Put the PE bag on the monitor.

2. Lower the stand of the monitor, then put the Cushions on the monitor.

3. Put the monitor into the carton.

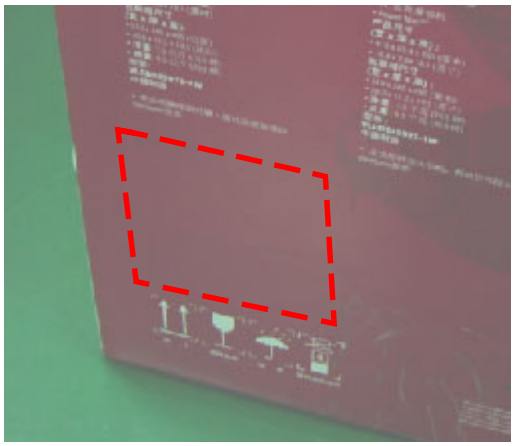
Note : Panel should face to the side as the following picture.

4. Put the VGA cable, DVI-D cable, User's Guide and Power Cord into the carton, close the cover of carton and tape.

Cables

User's Guide

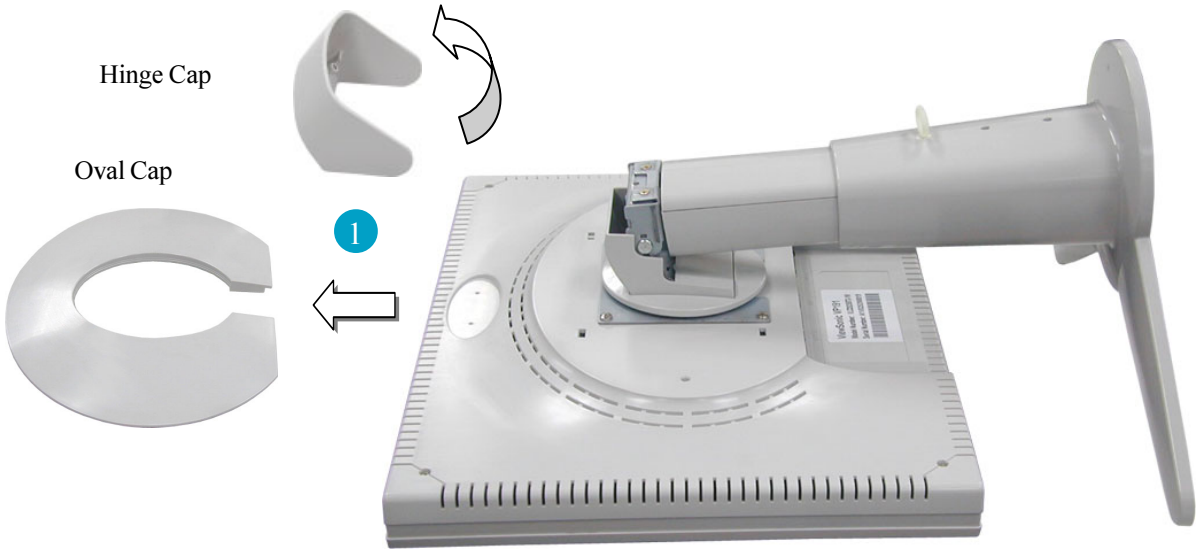
5. Tape the carton closed.



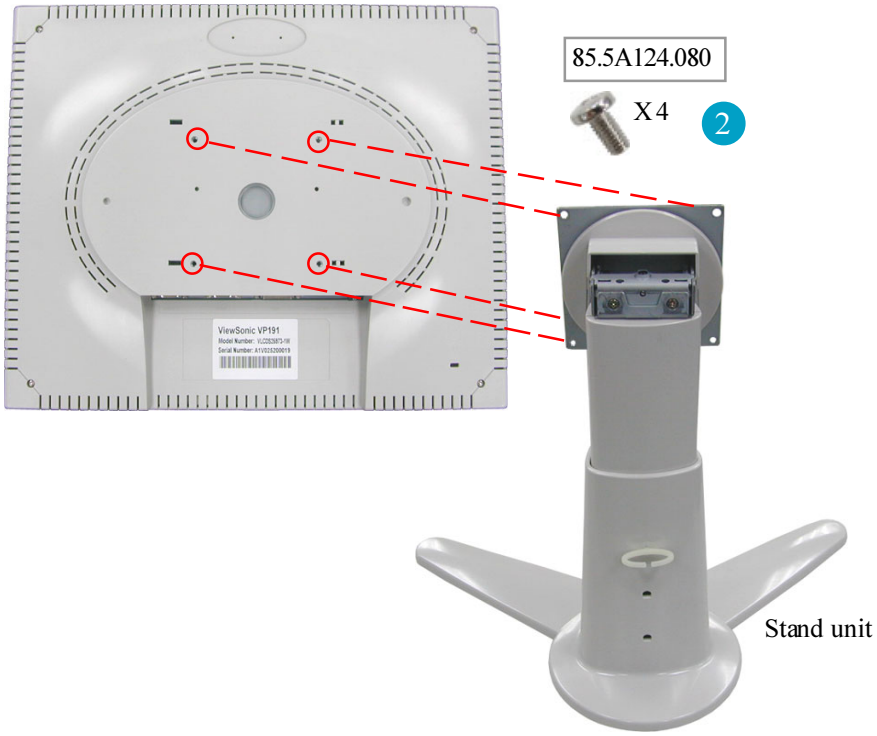
8-4 Procedure of Disassembly

8-4-1 Disassembly of Stand Unit From Monitor

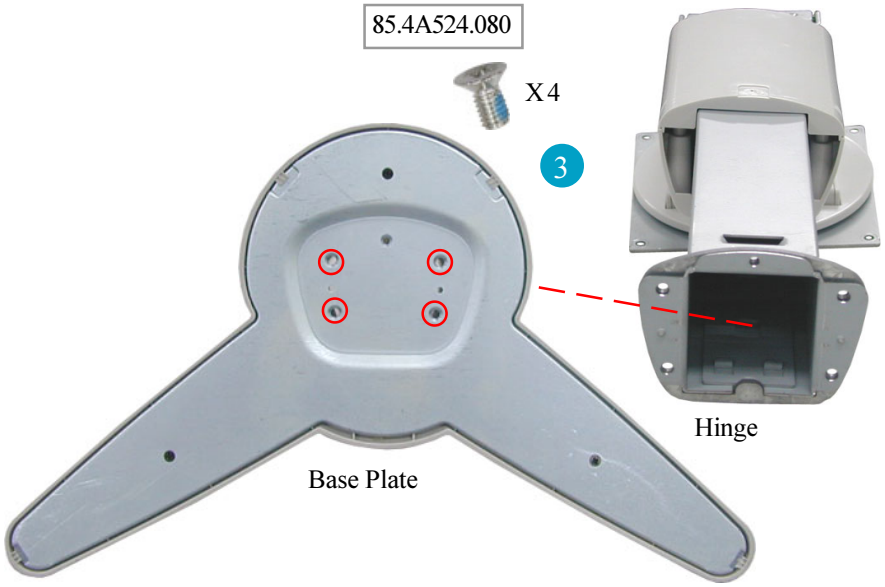
1. Put the monitor facedown. Take off Oval Cap and pry Hinge Cap off.



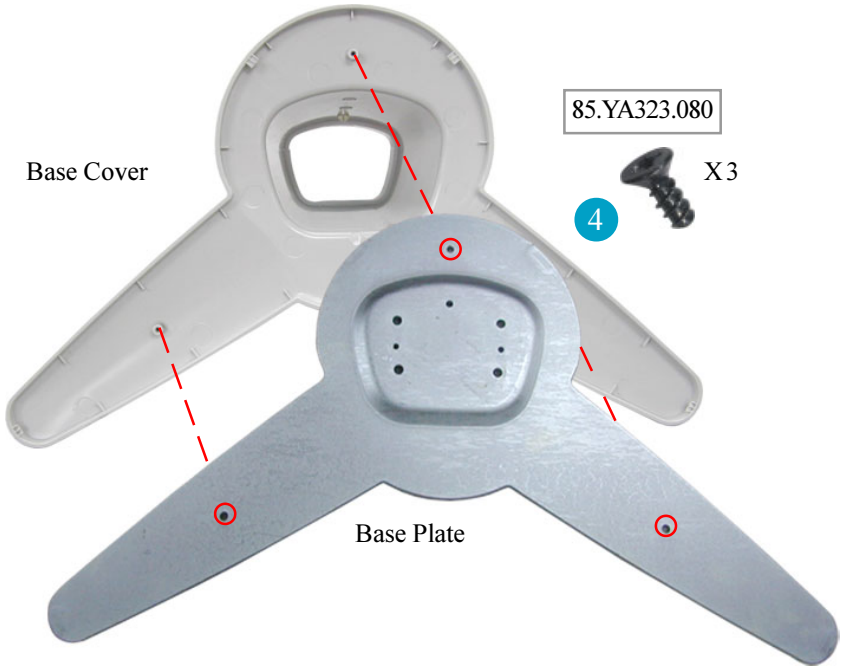
2. Unscrew four screws that secure Stand unit and detach Stand unit from the monitor.



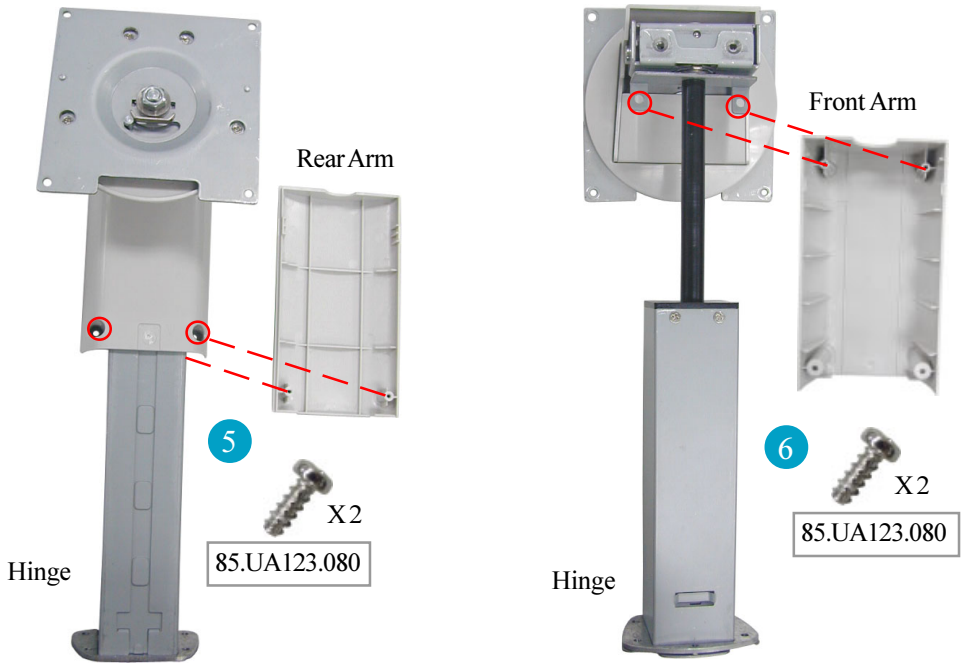
3. Unscrew four screws of Base Plate to remove Hinge.



4. Unscrew three screws that secure Base Plate to separate Base Plate from Base Cover.

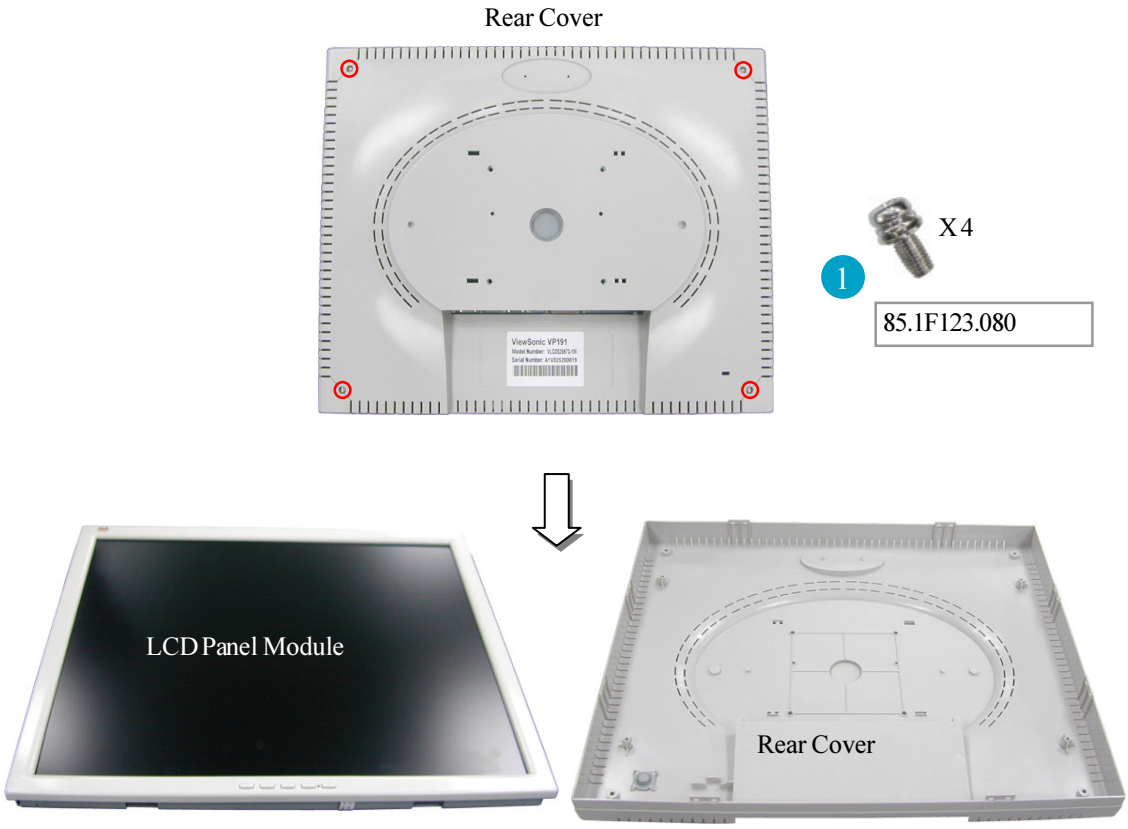


5. Unscrew two screws that secure Rear Arm to separate Rear Arm from Hinge.
6. Turn Hinge and unscrew two screws that secure Front Arm to detach Front Arm from Hinge.



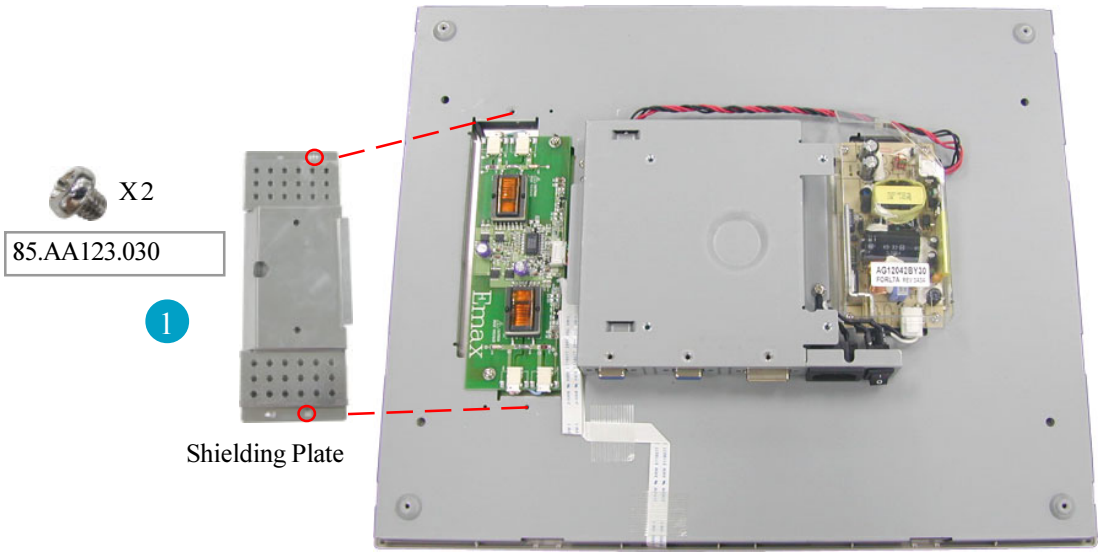
8-4-2 Disassembly of Rear Cover

1. Unscrew four screws of Rear Cover, then detach LCD Panel module from Rear Cover.

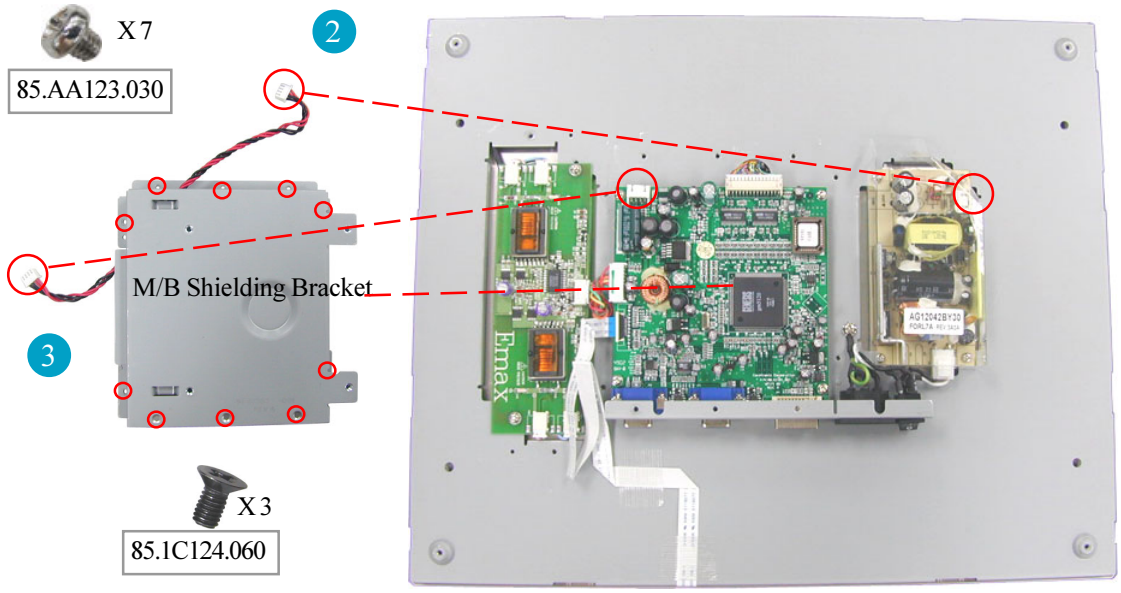


8-4-3 Disassembly of Inverter Board, Main Board and Power Board

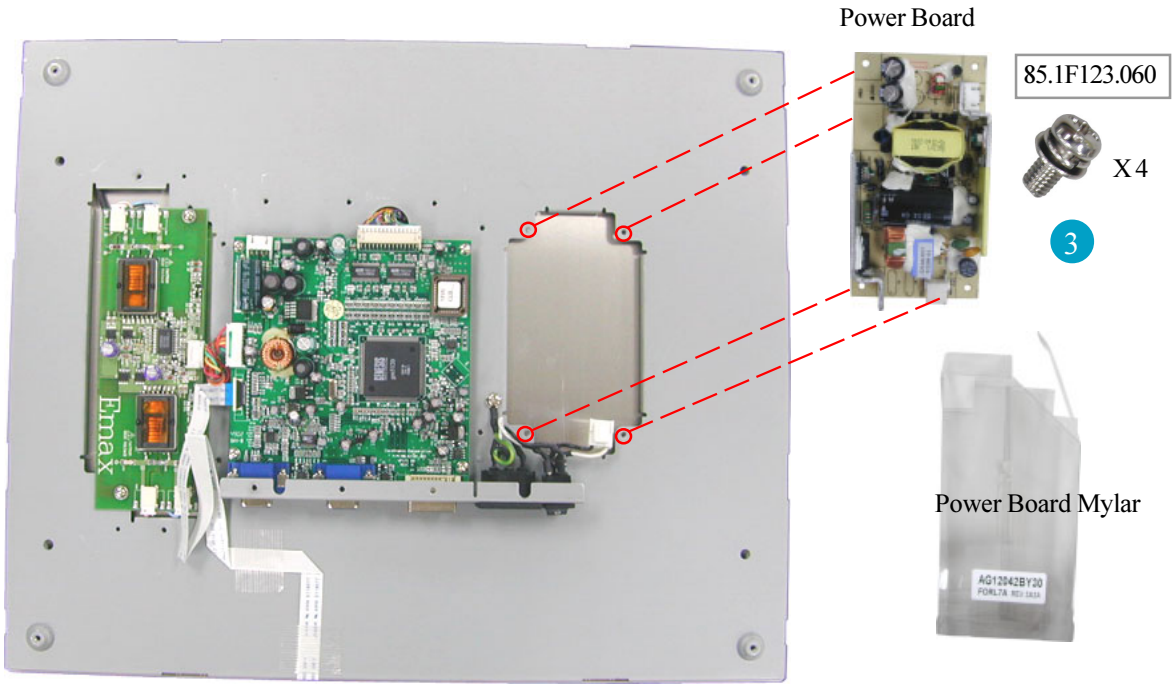
1. Unscrew two screws that secure Shielding Plate and remove Shielding Plate.



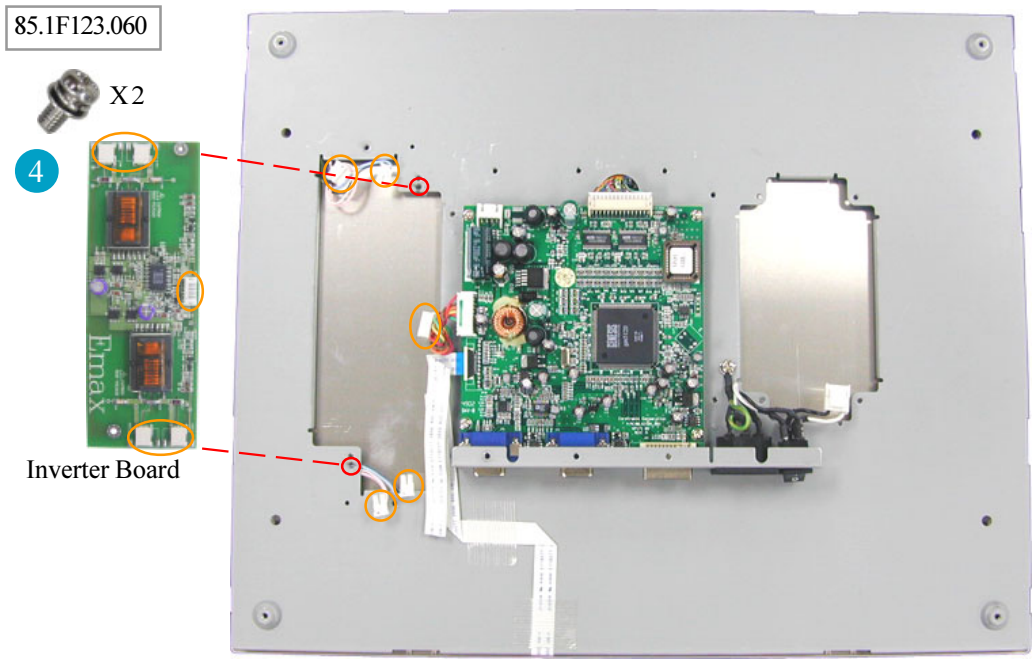
2. Disconnect the wire connect between M/B and Power Board.
3. Unscrew 10 screws that secure M/B Shielding Bracket and remove the EMI tape to remove M/B Shielding Bracket.



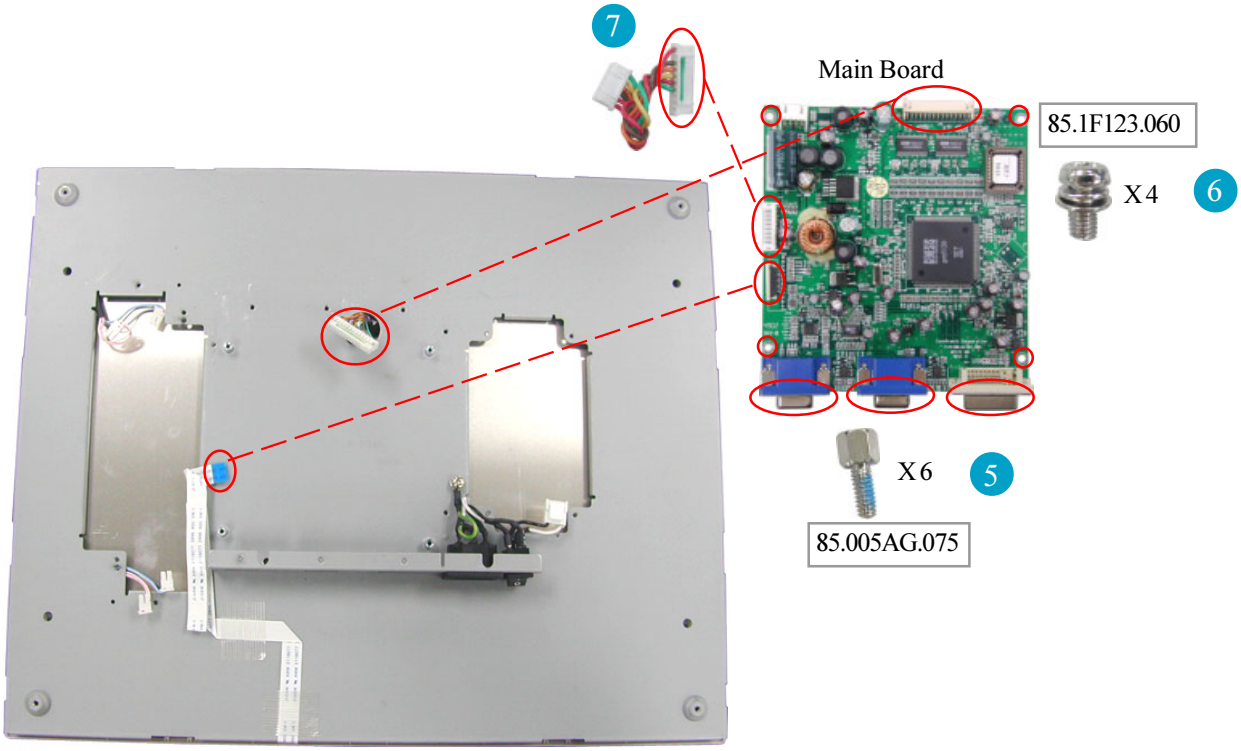
3. Unscrew four screws that secure Power Board to remove Power Board.
   Detach Power Board Mylar.



4. Unscrew two screws that secure Inverter Board and disconect five connectors to remove Inverter Board.

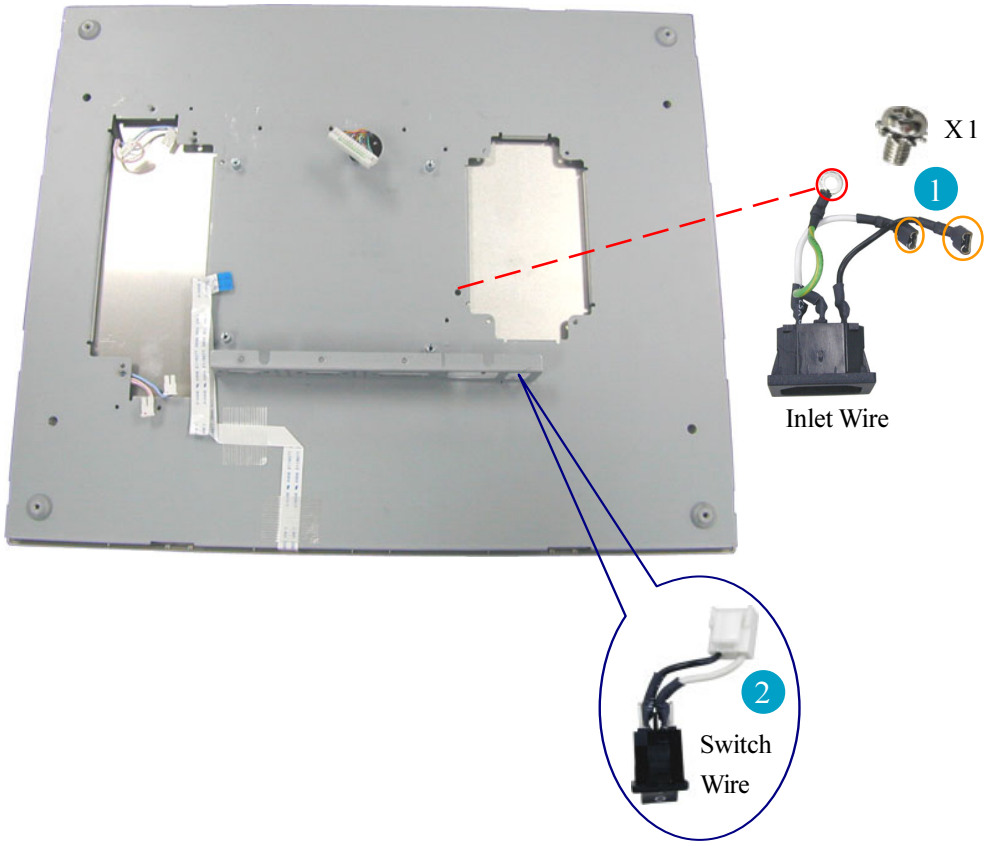


5. Unscew six hex screws that secure Main Board.
6. Unscrew four screws that secure Main Board to remove Main Board.
7. Disconnect the wires which are connected to Main Board.



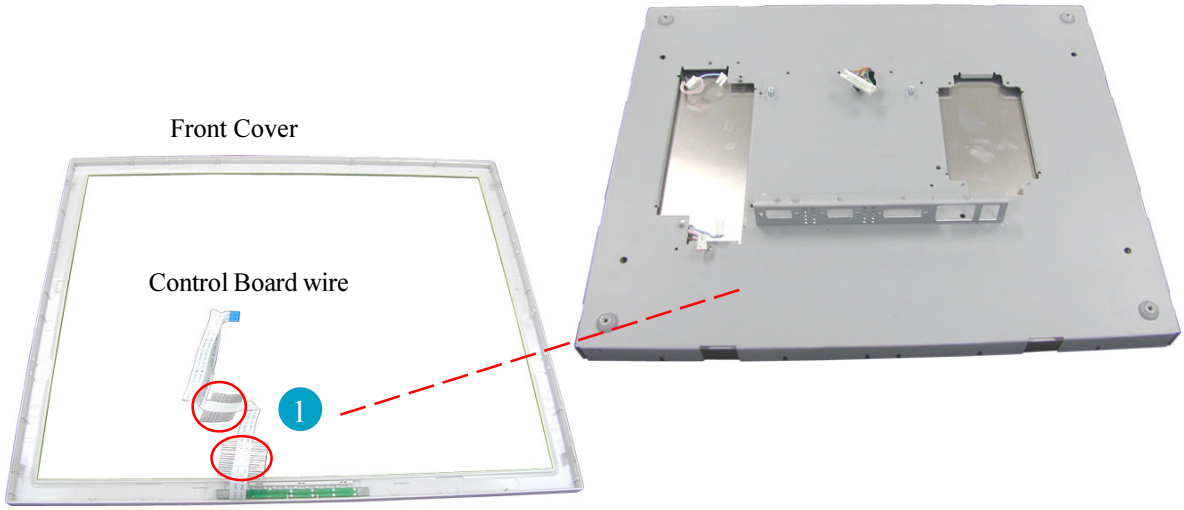
8-4-4 Disassembly of Switch and Inlet Wires

1. Unscrew one screw that secures Inlet Wire and disconnect two wires that are connected to Switch Wire.
2. Use flat screw driver to pull and press out Inlet and Switch Wires.

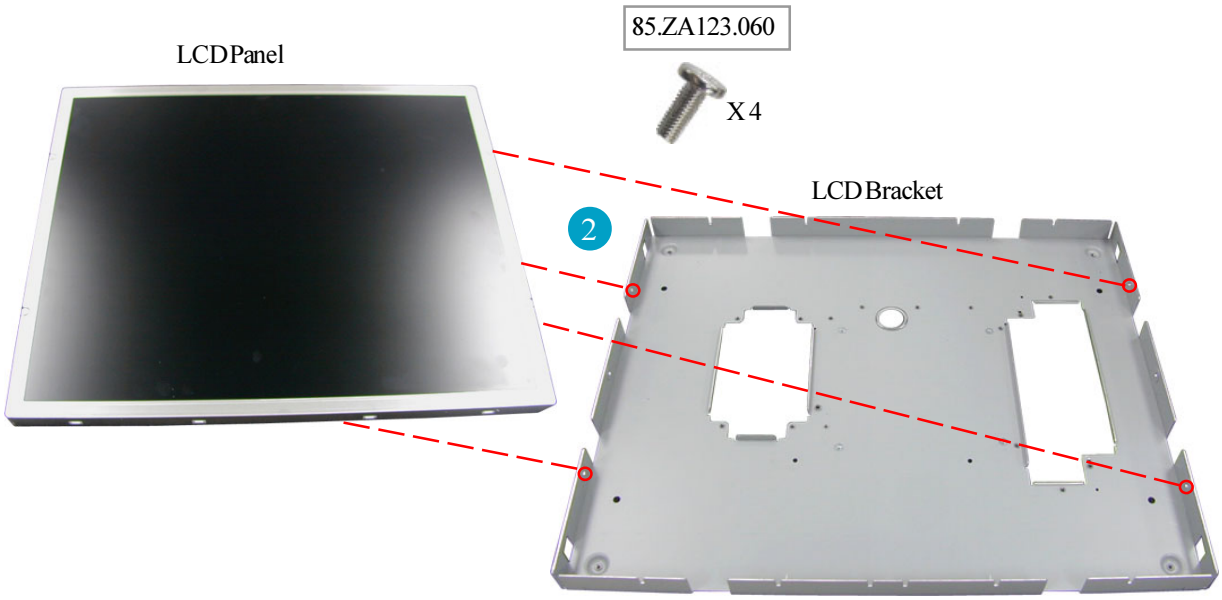


8-4-5 Disassembly of Front Cover Module and LCD Panel

1. Remove two tapes of Control Board wire and detach Front Cover from LCD Bracket.

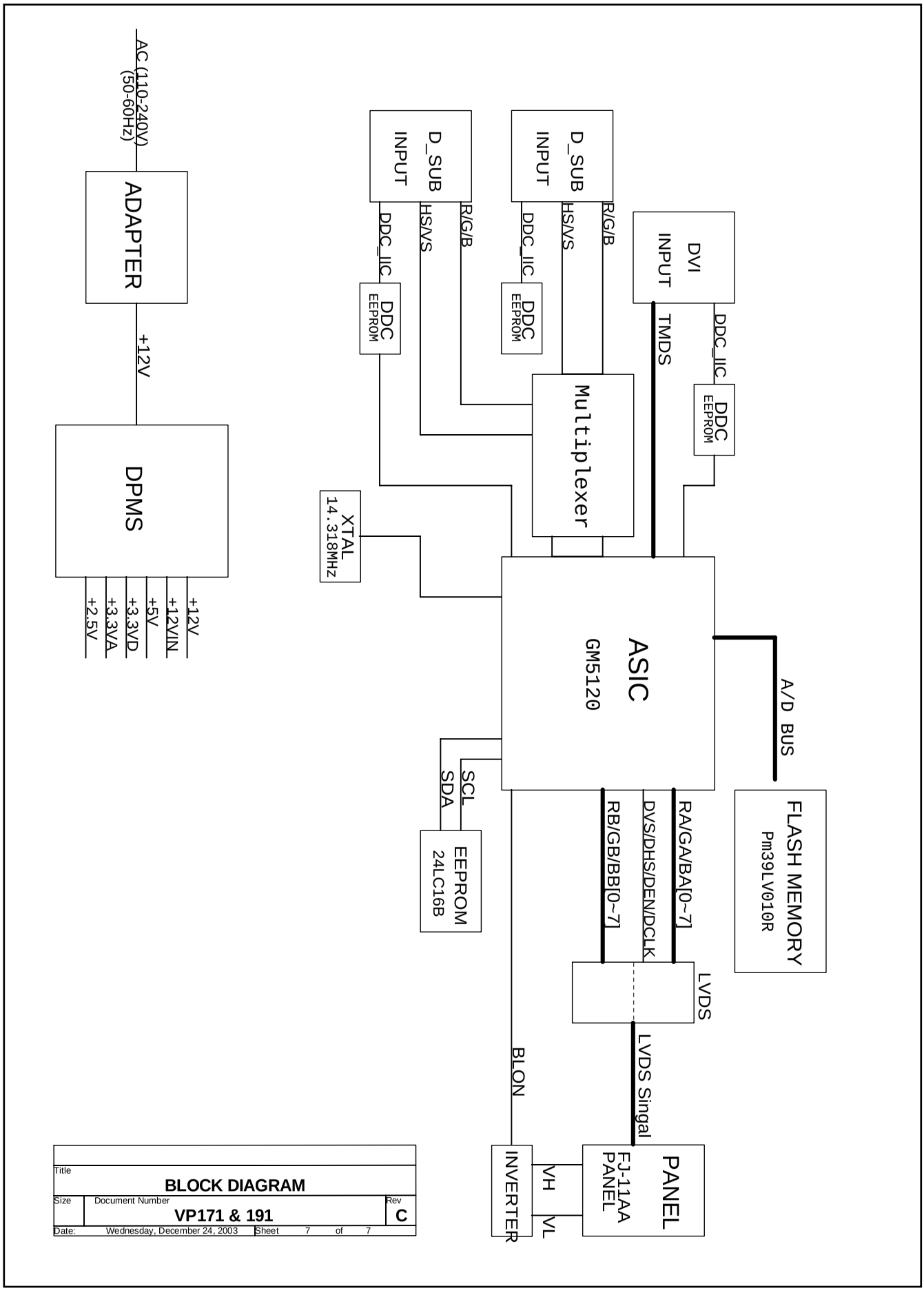


2. Unscrew four screws beside LCD Bracket to detach LCD Panel from LCD Bracket.

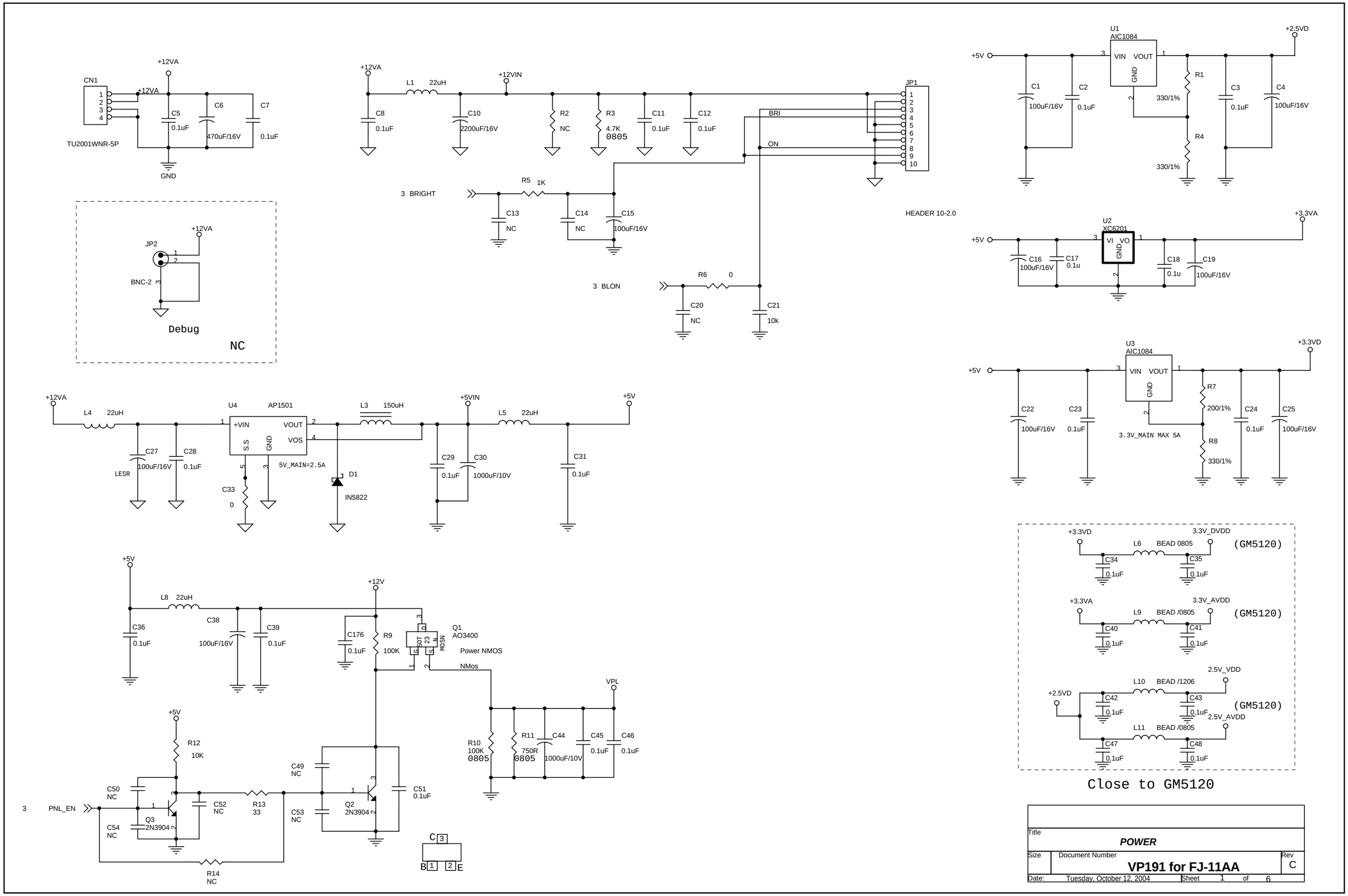


3. Turn LCD Panel around and remove the tape on the wire to disconnect the wire.

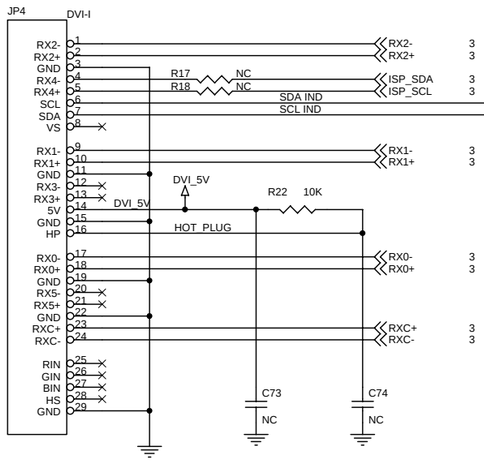
9. Block Diagram

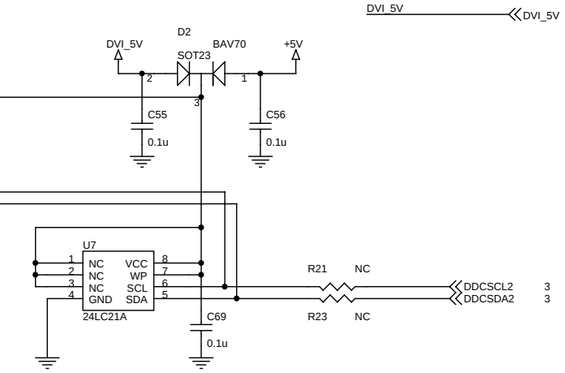


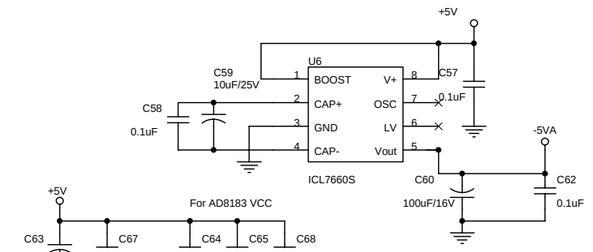
10. Schematic Diagrams

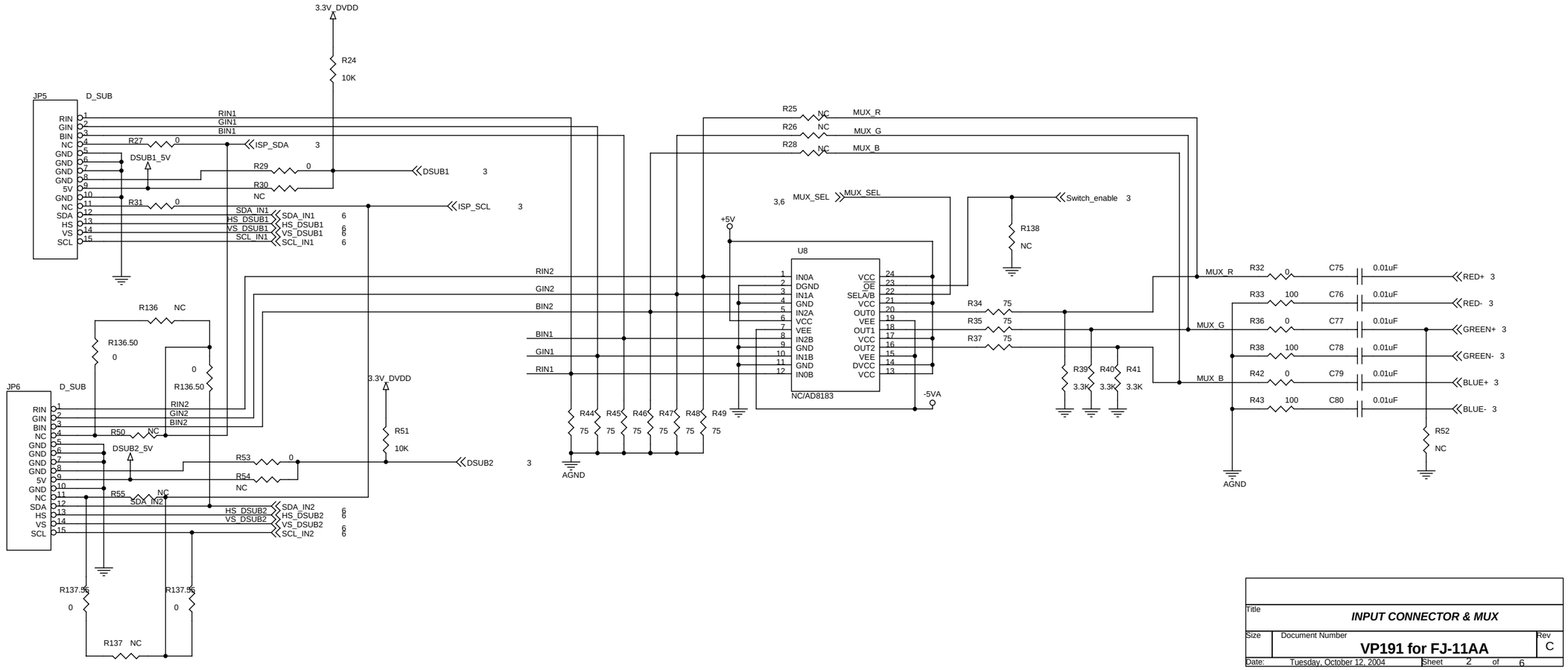


DVI CONNECTOR

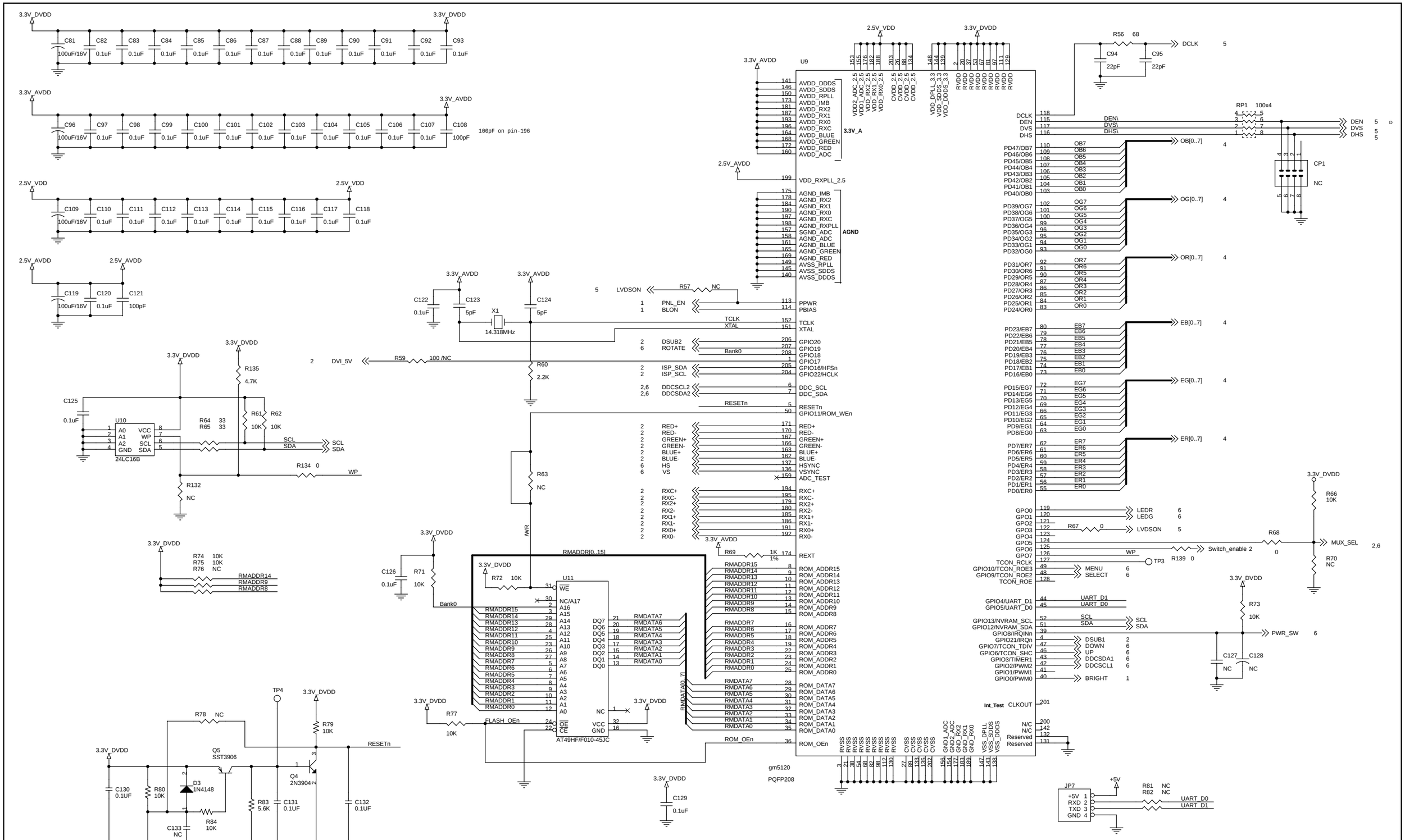








Title	***INPUT CONNECTOR & MUX***	
Size	Document Number **VP191 for FJ-11AA**	Rev C
Date: Tuesday, October 12, 2004	Sheet 2 of 6	


3.3V_DVDD
C81 100uF/16V
C82 0.1uF
C83 0.1uF
C84 0.1uF
C85 0.1uF
C86 0.1uF
C87 0.1uF
C88 0.1uF
C89 0.1uF
C90 0.1uF
C91 0.1uF
C92 0.1uF
C93 0.1uF
3.3V_AVDD
C96 100uF/16V
C97 0.1uF
C98 0.1uF
C99 0.1uF
C100 0.1uF
C101 0.1uF
C102 0.1uF
C103 0.1uF
C104 0.1uF
C105 0.1uF
C106 0.1uF
C107 0.1uF
C108 100pF
100pF on pin-196
2.5V_VDD
C109 100uF/16V
C110 0.1uF
C111 0.1uF
C112 0.1uF
C113 0.1uF
C114 0.1uF
C115 0.1uF
C116 0.1uF
C117 0.1uF
C118 0.1uF
2.5V_AVDD
C119 100uF/16V
C120 0.1uF
C121 100pF
U9
3.3V_A
AVDD_DDDS
AVDD_SDDS
AVDD_RPLL
AVDD_IMB
AVDD_RX2
AVDD_RX1
AVDD_RX0
AVDD_RXC
AVDD_BLUE
AVDD_GREEN
AVDD_RED
AVDD_ADC
VDD_RXPLL_2.5
AGND
AGND_IMB
AGND_RX2
AGND_RX1
AGND_RX0
AGND_RXC
AGND_RXPLL
SGND_ADC
AGND_ADC
AGND_BLUE
AGND_GREEN
AGND_RED
AVSS_RPLL
AVSS_SDDS
AVSS_DDDS
C122 0.1uF
C123 5pF
C124 5pF
X1 14.318MHz
TCLK
XTAL
R57 NC
LVDSON
PPWR
PBIAS
DSUB2
ROTATE
Bank0
GPIO20
GPIO19
GPIO18
GPIO17
ISP_SDA
ISP_SCL
GPIO16/HFSn
GPIO22/HCLK
DDCSCL2
DDCSDA2
DDC_SCL
DDC_SDA
RESETn
GPIO11/ROM_WEn
R59 100 /NC
R60 2.2K
DVI_5V
RED+
RED-
GREEN+
GREEN-
BLUE+
BLUE-
HS
VS
HSYNC
VSYNC
ADC_TEST
R63 NC
RXC+
RXC-
RX2+
RX2-
RX1+
RX1-
RX0+
RX0-
R69 1K 1%
REXT
3.3V_AVDD
2.5V_VDD
2.5V_AVDD
3.3V_DVDD
R56 68
C94 22pF
C95 22pF
DCLK
DEN
DVS
DHS
RP1 100x4
CP1
NC
OB[0..7]
OG[0..7]
OR[0..7]
EB[0..7]
EG[0..7]
ER[0..7]
PD47/OB7
PD46/OB6
PD45/OB5
PD44/OB4
PD43/OB3
PD42/OB2
PD41/OB1
PD40/OB0
PD39/OG7
PD38/OG6
PD37/OG5
PD36/OG4
PD35/OG3
PD34/OG2
PD33/OG1
PD32/OG0
PD31/OR7
PD30/OR6
PD29/OR5
PD28/OR4
PD27/OR3
PD26/OR2
PD25/OR1
PD24/OR0
PD23/EB7
PD22/EB6
PD21/EB5
PD20/EB4
PD19/EB3
PD18/EB2
PD17/EB1
PD16/EB0
PD15/EG7
PD14/EG6
PD13/EG5
PD12/EG4
PD11/EG3
PD10/EG2
PD9/EG1
PD8/EG0
PD7/ER7
PD6/ER6
PD5/ER5
PD4/ER4
PD3/ER3
PD2/ER2
PD1/ER1
PD0/ER0
GPO0 LEDR
GPO1 LEDG
GPO2
GPO3
GPO4
GPO5
GPO6 Switch_enable
GPO7
TCON_RCLK
GPIO10/TCON_ROE3 MENU
GPIO9/TCON_ROE2 SELECT
TCON_ROE
R67 0
LVDSON
WP
TP3
R139 0
GPIO4/UART_D1
GPIO5/UART_D0
UART_D1
UART_D0
GPIO13/NVRAM_SCL
GPIO12/NVRAM_SDA
SCL
SDA
GPIO8/IRQINn
GPIO21/IRQn DSUB1
GPIO7/TCON_TDiV DOWN
GPIO6/TCON_SHC UP
GPIO3/TIMER1 DDCSDA1
GPIO2/PWM2 DDCSCL1
GPIO1/PWM1
GPIO0/PWM0 BRIGHT
PWR_SW
Int_Test CLKOUT
N/C
N/C
Reserved
Reserved
R68 0
MUX_SEL
R70 NC
R73 10K
C127 NC
C128 NC
R66 10K
JP7
+5V
RXD
TXD
GND
R81 NC
R82 NC
C125 0.1uF
U10
24LC16B
A0
A1
A2
GND
VCC
WP
SCL
SDA
R135 4.7K
R64 33
R65 33
R61 10K
R62 10K
R134 0
R132 NC
R74 10K
R75 10K
R76 NC
RMADDR14
RMADDR9
RMADDR8
C126 0.1uF
R71 10K
R72 10K
U11
AT49HF/F010-45JC
WE
NC/A17
A16
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
DQ7
DQ6
DQ5
DQ4
DQ3
DQ2
DQ1
DQ0
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VCC
GND
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RMADDR13
RMADDR12
RMADDR11
RMADDR10
RMADDR9
RMADDR8
RMADDR7
RMADDR6
RMADDR5
RMADDR4
RMADDR3
RMADDR2
RMADDR1
RMADDR0
RMDATA7
RMDATA6
RMDATA5
RMDATA4
RMDATA3
RMDATA2
RMDATA1
RMDATA0
ROM_ADDR15
ROM_ADDR14
ROM_ADDR13
ROM_ADDR12
ROM_ADDR11
ROM_ADDR10
ROM_ADDR9
ROM_ADDR8
ROM_ADDR7
ROM_ADDR6
ROM_ADDR5
ROM_ADDR4
ROM_ADDR3
ROM_ADDR2
ROM_ADDR1
ROM_ADDR0
ROM_DATA7
ROM_DATA6
ROM_DATA5
ROM_DATA4
ROM_DATA3
ROM_DATA2
ROM_DATA1
ROM_DATA0
ROM_OEn
FLASH_OEn
R77 10K
TP4
R78 NC
R79 10K
Q5 SST3906
Q4 2N3904
D3 1N4148
C130 0.1UF
R80 10K
R83 5.6K
C131 0.1UF
C132 0.1UF
C133 NC
R84 10K
C134 10uF/16V
C129 0.1uF
gm5120
PQFP208
RESETn
SCL
SDA
WP
Title
GM5120
Size
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3 OB[0..7] OB[0..7]

3 OG[0..7] OG[0..7]

3 OR[0..7] OR[0..7]

3 EB[0..7] EB[0..7]

3 EG[0..7] EG[0..7]

3 ER[0..7] ER[0..7]

DRO[0..7] DRO[0..7] 5

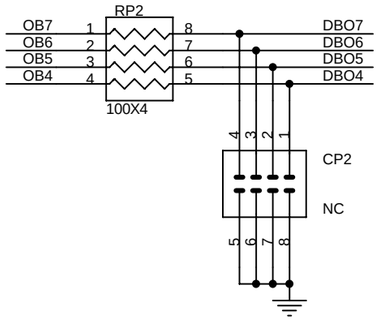
DGO[0..7] DGO[0..7] 5

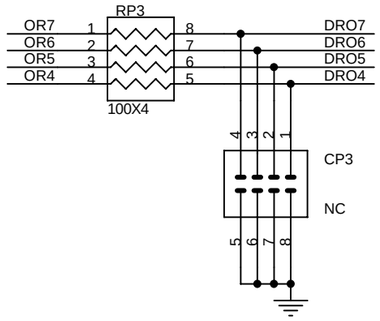
DBO[0..7] DBO[0..7] 5

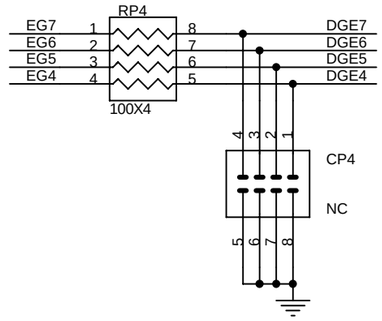
DRE[0..7] DRE[0..7] 5

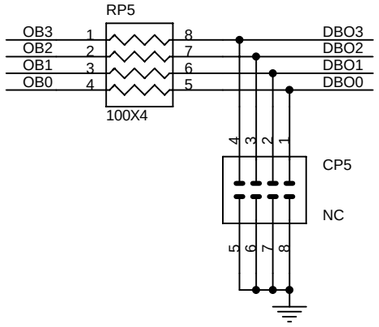
DGE[0..7] DGE[0..7] 5

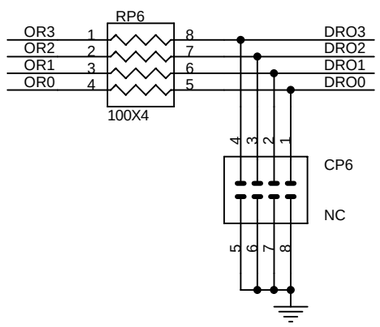
DBE[0..7] DBE[0..7] 5

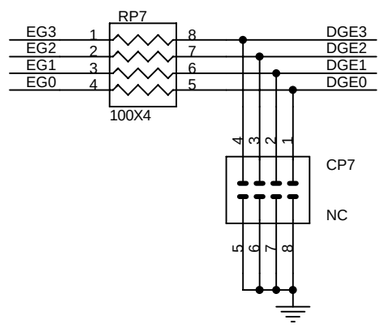


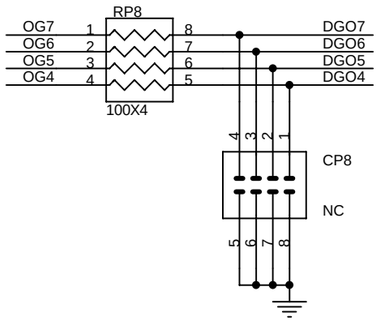


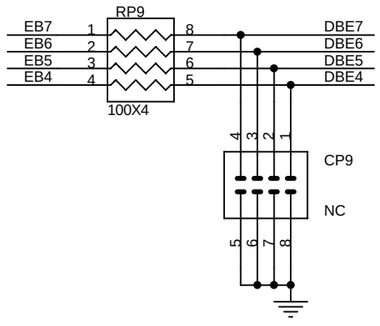


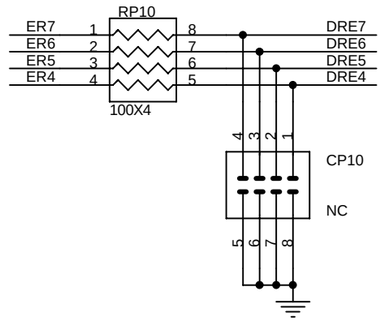


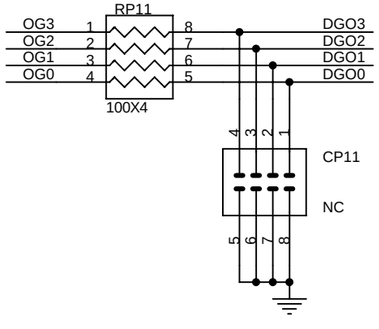


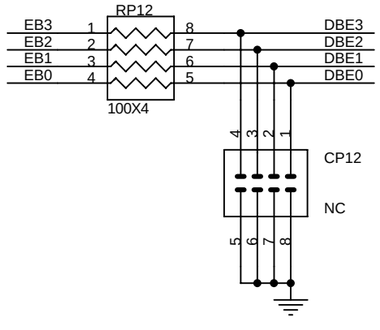


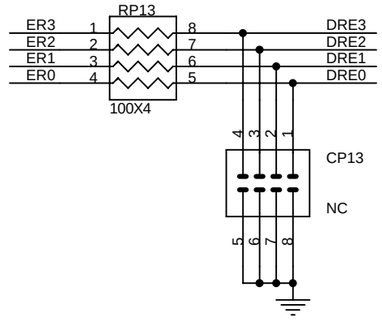












Title	***OUTPUT INTERFACE***	
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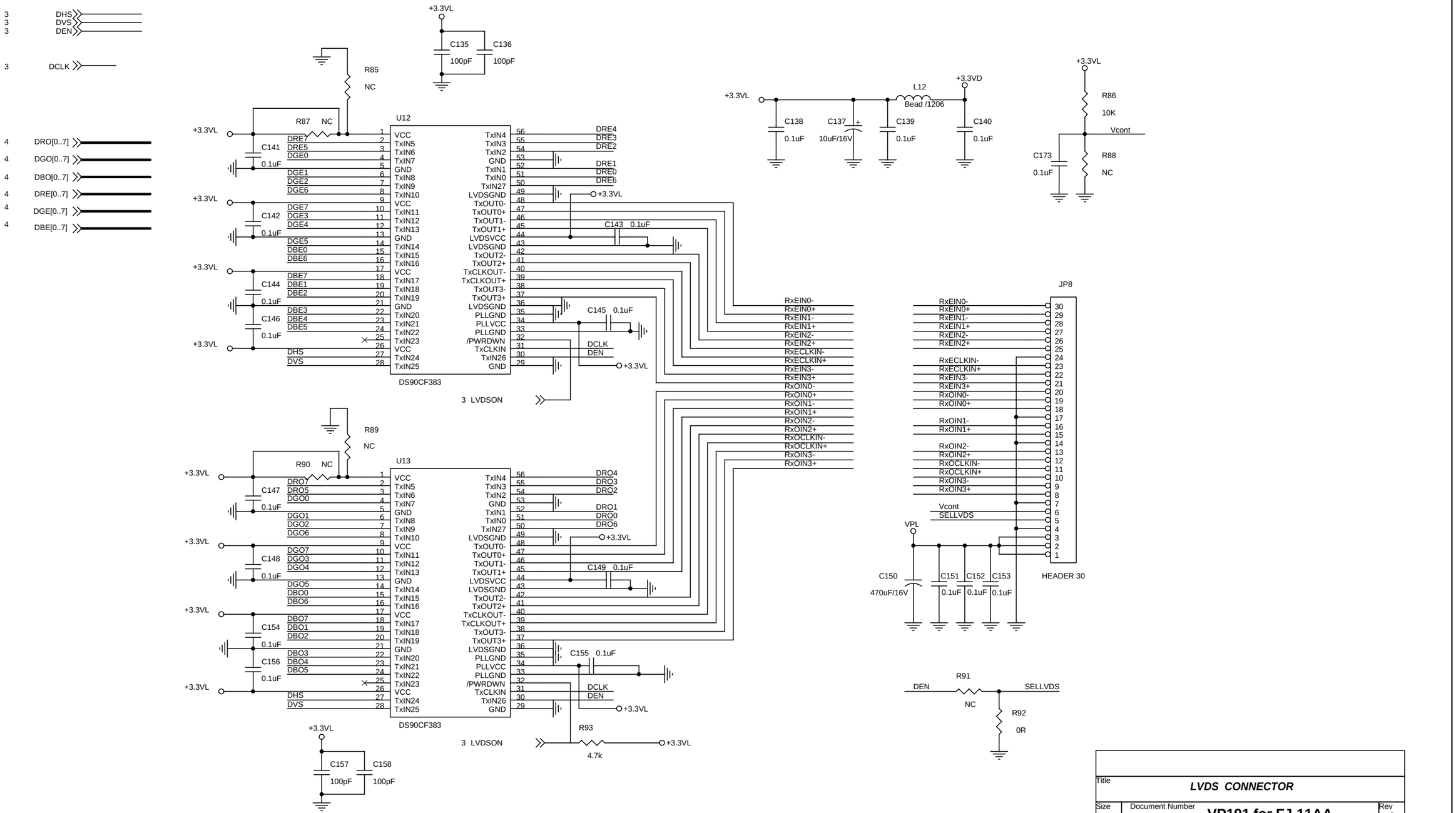
3 DHS
3 DVS
3 DEN
3 DCLK
4 DRO[0..7]
4 DGO[0..7]
4 DBO[0..7]
4 DRE[0..7]
4 DGE[0..7]
4 DBE[0..7]
+3.3VL
C135 100pF
C136 100pF
R85 NC
U12
R87 NC
C141 0.1uF
C142 0.1uF
C144 0.1uF
C146 0.1uF
DRE7 DRE5 DGE0 DGE1 DGE2 DGE6 DGE7 DGE3 DGE4 DGE5 DBE0 DBE6 DBE7 DBE1 DBE2 DBE3 DBE4 DBE5 DHS DVS
VCC TxIN5 TxIN6 TxIN7 GND TxIN8 TxIN9 TxIN10 VCC TxIN11 TxIN12 TxIN13 GND TxIN14 TxIN15 TxIN16 VCC TxIN17 TxIN18 TxIN19 GND TxIN20 TxIN21 TxIN22 TxIN23 VCC TxIN24 TxIN25
TxIN4 TxIN3 TxIN2 GND TxIN1 TxIN0 TxIN27 LVDSGND TxOUT0- TxOUT0+ TxOUT1- TxOUT1+ LVDSVCC LVDSGND TxOUT2- TxOUT2+ TxCLKOUT- TxCLKOUT+ TxOUT3- TxOUT3+ LVDSGND PLLGND PLLVCC PLLGND /PWRDWN TxCLKIN TxIN26 GND
DRE4 DRE3 DRE2 DRE1 DRE0 DRE6
+3.3VL
C143 0.1uF
C145 0.1uF
DCLK DEN
DS90CF383
3 LVDSON
R89 NC
U13
R90 NC
C147 0.1uF
C148 0.1uF
C154 0.1uF
C156 0.1uF
DRO7 DRO5 DGO0 DGO1 DGO2 DGO6 DGO7 DGO3 DGO4 DGO5 DBO0 DBO6 DBO7 DBO1 DBO2 DBO3 DBO4 DBO5 DHS DVS
VCC TxIN5 TxIN6 TxIN7 GND TxIN8 TxIN9 TxIN10 VCC TxIN11 TxIN12 TxIN13 GND TxIN14 TxIN15 TxIN16 VCC TxIN17 TxIN18 TxIN19 GND TxIN20 TxIN21 TxIN22 TxIN23 VCC TxIN24 TxIN25
TxIN4 TxIN3 TxIN2 GND TxIN1 TxIN0 TxIN27 LVDSGND TxOUT0- TxOUT0+ TxOUT1- TxOUT1+ LVDSVCC LVDSGND TxOUT2- TxOUT2+ TxCLKOUT- TxCLKOUT+ TxOUT3- TxOUT3+ LVDSGND PLLGND PLLVCC PLLGND /PWRDWN TxCLKIN TxIN26 GND
DRO4 DRO3 DRO2 DRO1 DRO0 DRO6
+3.3VL
C149 0.1uF
C155 0.1uF
DCLK DEN
DS90CF383
3 LVDSON
R93 4.7k
C157 100pF
C158 100pF
RxEIN0- RxEIN0+ RxEIN1- RxEIN1+ RxEIN2- RxEIN2+ RxECLKIN- RxECLKIN+ RxEIN3- RxEIN3+ RxOIN0- RxOIN0+ RxOIN1- RxOIN1+ RxOIN2- RxOIN2+ RxOCLKIN- RxOCLKIN+ RxOIN3- RxOIN3+
+3.3VL
L12 Bead /1206
+3.3VD
C138 0.1uF
C137 10uF/16V
C139 0.1uF
C140 0.1uF
+3.3VL
R86 10K
Vcont
C173 0.1uF
R88 NC
JP8
RxEIN0- RxEIN0+ RxEIN1- RxEIN1+ RxEIN2- RxEIN2+ RxECLKIN- RxECLKIN+ RxEIN3- RxEIN3+ RxOIN0- RxOIN0+ RxOIN1- RxOIN1+ RxOIN2- RxOIN2+ RxOCLKIN- RxOCLKIN+ RxOIN3- RxOIN3+ Vcont SELLVDS
30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
HEADER 30
VPL
C150 470uF/16V
C151 0.1uF
C152 0.1uF
C153 0.1uF
R91 NC
DEN SELLVDS
R92 0R
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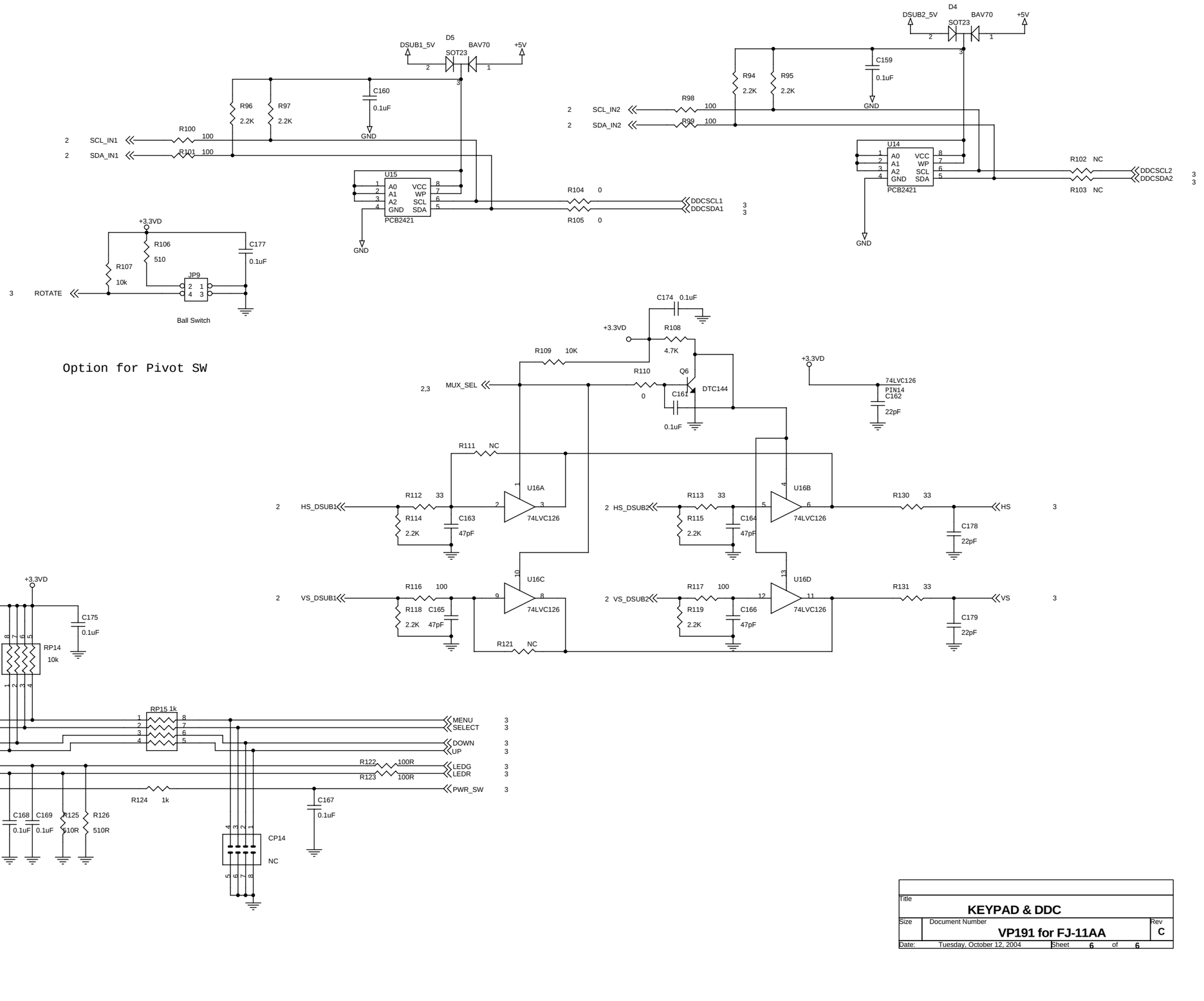

Title	KEYPAD & DDC	
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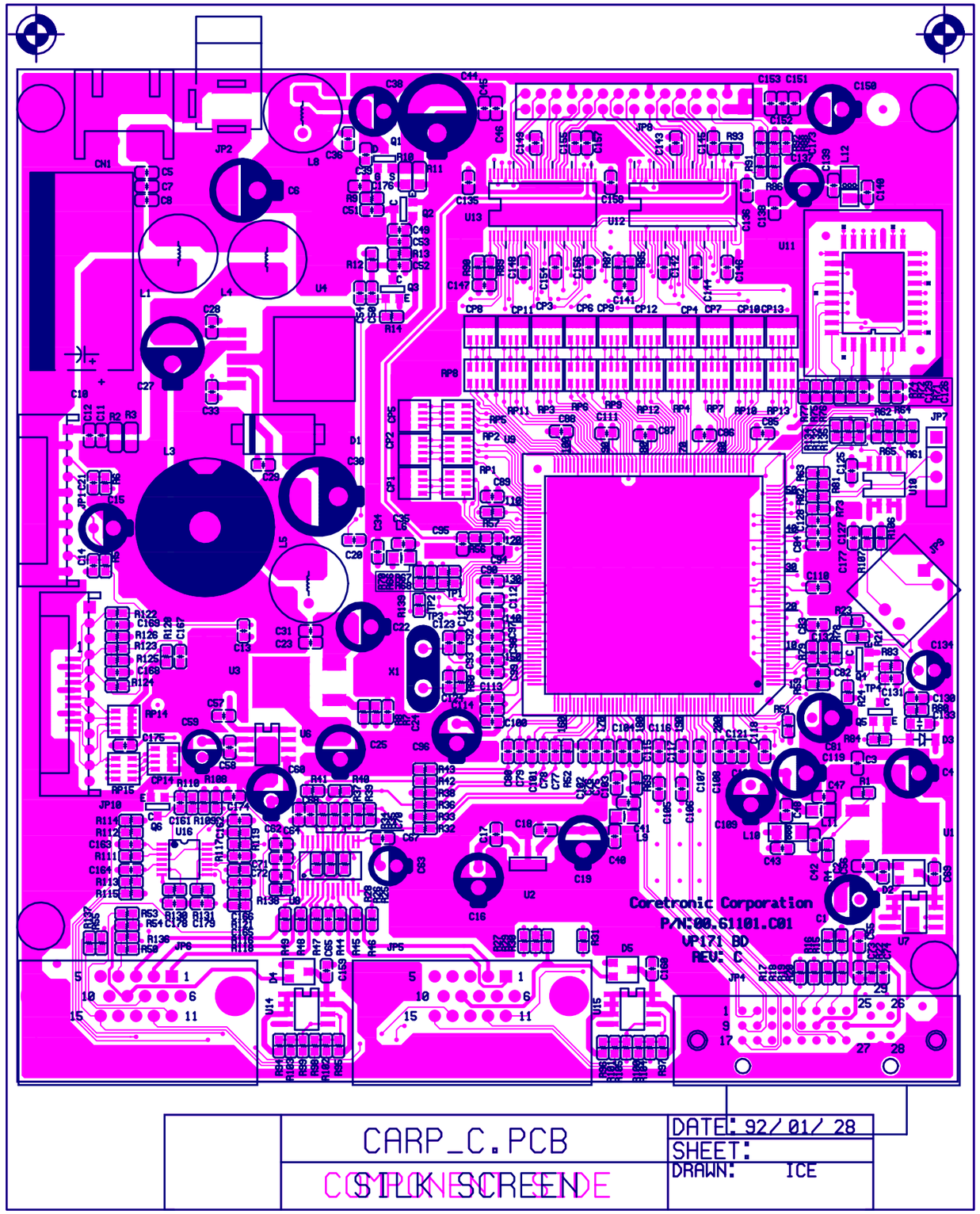
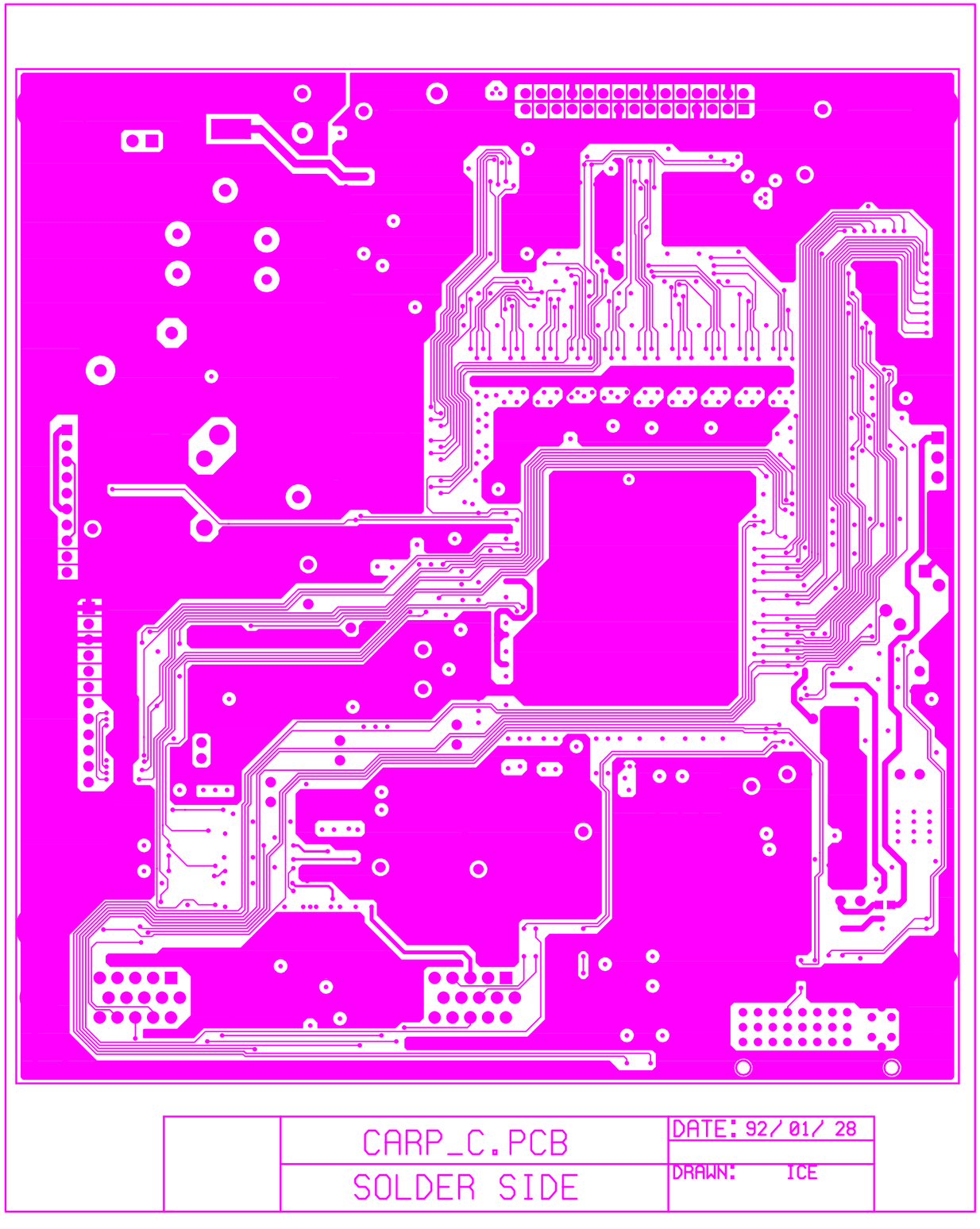
11. PCB Layout Diagrams

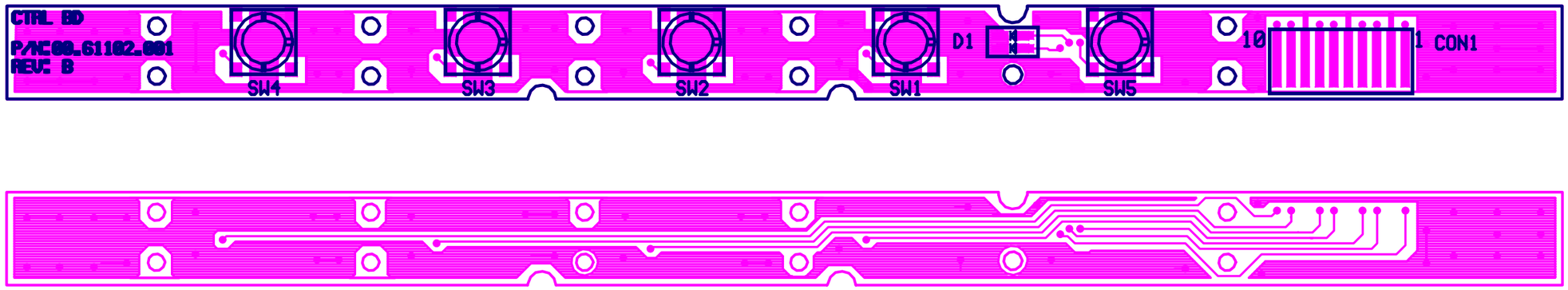
Main Board



Main Board



Control Board



Reader's Response

Dear Readers:

Thank you in advance for your feedback on our Service Manual,which allows continuous improvement of our products. We would appreciate your completion of the Assessment Matrix below, for return to ViewSonic Corporation.

Assessment

A.What do you think about the content after reading **VP191b/s** Service Manual?

Unit	*Excellent*	*Good*	*Fair*	*Bad*
1. Precautions And Safety Notices				
2. Specification				
3. Front Panel Function Control Description				
4. Circuit Description				
5. Adjusting Procedure				
6. Trouble Shooting Flow Chart				
7. Recommended Spare Parts List				
8. Exploded Diagram and Spare Parts List				
9. Block Diagram				
10. Schematic Diagrams				
11. PCB Layout Diagrams				

B.Are you satisfied with the **VP191b/s** service manual?

Item	*Excellent*	*Good*	*Fair*	*Bad*
1. Service Manual Content				
2. Service Manual Layout				
3. The form and listing				

C.Do you have any other opinion or suggestion about this service manual?

Reader's basic data:

Name:		Title:	
Company:			
Add.:			
Tel:		Fax:	
E-mail:			

After completing this form, please return it to ViewSonic Quality Assurance in the USA at facsimile 1-909-839-7943. You may also e-mail any suggestions to the Director, Quality Systems & Processes (marc.maupin@viewsonic.com)